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Personal and Home

Emergency

Preparedness Workbook

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SNAP (Sunnyvale Neighborhoods Actively Prepare)

SPECIAL THANKS

The City of Sunnyvale gratefully acknowledges the contributions made by Public Safety Officer Kevin Richlin, Sunnyvale Department of Public Safety who created the majority of the illustrations for this workbook. Our thanks also to Lieutenant Dennis Wong and Patti Diaz for their artistic contributions, and to John Emmett for his technical assistance.

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The following individuals conducted the research and design of the 1993 version of this Emergency Preparedness Workbook: Lynn Brown, Sherri Calderhead, Jack Hardy, Commander Ralph Hern, Wendy Lozano, Captain Byron Pipkin, Cherel Sampson, David Vossbrink, Chief Regan Williams and Raelene Wong.

DISCLAIMER

Every reasonable effort has been made to ensure the accuracy of this book. However, it is impossible to completely forecast a disaster or its consequences. the City of Sunnyvale and its employees assume no responsibility for any injury or damage resulting from the use of this book or the products for methods recommended. The information provided is solely an attempt to educate on the subject of disaster preparedness and response. Users do so at their own risk

WELCOME TO SNAP

Welcome to the **SNAP** program!

SNAP is an acronym for ***Sunnyvale Neighborhoods Actively Prepare***, a unique residential emergency preparedness program.

The program is made up of neighborhoods throughout the city that are organized to activate in times of disaster.

The City recognizes that it will not be able to respond to all of the immediate needs of all of its citizens following a major disaster. **SNAP** was designed as a way to encourage direct citizen involvement with the primary goal of helping you, your family and your neighborhood to function independent of outside services for the first three days.

Increasing the safety and security of your home and family is what this workbook is all about. It includes step-by-step instructions on how to do essential preparedness activities. Please spend a few hours in the coming weeks to complete the items listed here. The time and money invested will increase your confidence and ability to take care of your family and possessions after a disaster.

SNAP was put to the test in 1989 during the Loma Prieta earthquake. Although Sunnyvale was not severely impacted, residents did experience gas leaks, toppled chimneys, power outages, rattled nerves, parents stuck in traffic and children left alone. Instead of experiencing panic, **SNAP** neighborhoods quickly responded to this disaster with planned, productive actions. **SNAP** members were able to take care of most neighborhood needs because they were prepared and knew what needed to be accomplished. Residents not at home when the disaster struck were confident in the knowledge that their neighborhood was prepared.

We invite you to join the **SNAP** program in our community. Knowing what to do will help you minimize the effects of a disaster and help you survive it in a better way.

Sincerely,

Mayor and City Council
City of Sunnyvale

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POTENTIAL DISASTERS IN SUNNYVALE

Potential Disasters in Sunnyvale, continued

DID YOU KNOW?

Every 60 seconds, a house burns. Fire spreads quickly - in two minutes a room can become life-threatening and in five minutes your house can be engulfed in flames.

Property damage from flooding now totals over 1 billion dollars each year in the United States.

The leading cause of death during winter storms is from automobile or other transportation accidents.

Hurricane Andrew was the costliest disaster in American History.

Earthquakes with a magnitude of at least 4.5 on the Richter Scale are strong enough to be recorded by sensitive seismographs all over the world.

In an average year, one out of every three trains and one out of every ten trucks is carrying hazardous materials.

Flooding

Santa Clara County is designated as an active flood plain as a result of flooding caused by excessive rainfall and tides. From January to April 1982, Sunnyvale experienced flooding due to a series of storms and high tides. Several streets were flooded and clogged with mud and debris. The places in Sunnyvale most likely to flood are east of Fair Oaks Avenue and north of Central Expressway. Floods can be slow or fast rising but generally develop over a period of days. Do not attempt to drive on a flooded roadway. If your car stalls, abandon it immediately and climb to higher ground.

Winter Storms and Cold Weather

Severe winter storms carry the potential of flooding and extended power outages. Fire during winter storms presents a danger because water supplies may freeze and it may be difficult for fire fighting equipment to get to the fire. In December 1990, Santa Clara County experienced a severe winter freeze. This freeze caused damage to heating systems, water mains, sprinkler systems and landscaping throughout Sunnyvale.

Earthquakes

Sunnyvale lies between three of the world's most active earthquake faults. The San Andreas fault lies seven miles south of Sunnyvale's City Hall. The Hayward-Calaveras faults are ten miles northeast of City Hall. On October 17, 1989, a Richter magnitude 7.1 earthquake shook the San Francisco Bay Area. The earthquake left 62 people dead, over 3,700 people injured, over 12,000 residents displaced and caused more than 6 billion dollars in damage. Fortunately, Sunnyvale was not severely impacted. Residents experienced toppled chimneys, gas leaks and power outages. Other cities in the Bay Area suffered severe damage. The 1989 Loma Prieta earthquake did not significantly reduce the potential for large earthquakes along other fault segments in the Bay Area. As a matter of fact, the United States Geological Survey and other scientists research concluded that there is a 70 percent chance of at least one magnitude 6.7 or greater earthquake will strike the San Francisco Bay Area before the year 2030.

Fires

The Oakland-Berkeley hills suffered a firestorm in October, 1991. Over 3,000 living units were damaged or destroyed. There were 25 deaths and 150 injuries reported. More than 10,000 people were evacuated through smoke and blowing debris. While Sunnyvale is not likely to experience a wildland fire, there is always the possibility of a fire following an earthquake. In Sunnyvale, the most serious problems will center in areas where buildings are older and are more susceptible to fire because of their close proximity to each other. The intensity of the fire varies with the extent of damage to the water system, isolation due to bridge and/or freeway overpass collapse, roadway damage and/or amount of debris blocking the roadway and weather conditions.

Potential Disasters in Sunnyvale, continued

Hazardous Materials

Many of Sunnyvale's high-technology industries are dependent on the use of large quantities of hazardous materials. They use a variety of chemicals, many of them hazardous, to make their products. Because these chemicals are used, stored and transported daily throughout the City, it is possible that Sunnyvale could experience a chemical spill that affects a large area. An accident or fire could necessitate the evacuation of areas within the City. On a smaller scale, many household products contain chemicals that are poisonous, corrosive, flammable and/or chemically reactive. These products can topple over and spill during an earthquake, causing a chemical spill inside the home.

Aircraft Accidents

In April 1973, two planes collided over the Sunnyvale Municipal Golf Course. Because Sunnyvale sits within some of the most dense air space in the world (e.g., San Francisco International, San Jose International and Oakland international airports) a future occurrence is possible

Tornado

In May 1998, a tornado plowed through a six-to-eight block area of the Cherry Chase neighborhood. The tornado randomly damaged approximately 50 homes and other property by ripping out trees from the ground, tearing roofs from houses and shattering countless windows. Fortunately, there were no deaths or injuries. This is not an unusual occurrence for Sunnyvale. In 1951, Sunnyvale also experienced a tornado that caused similar damage.

PLANNING FOR YOURSELF AND YOUR FAMILY

Your family could be anywhere when the next disaster strikes - at work, at school, in the car, etc. Families can cope with disaster by planning ahead. Knowing what to do can help your family deal with fear and uncertainty. By planning and practicing what to do, your family will be able to react correctly and spontaneously at the first sign of danger.

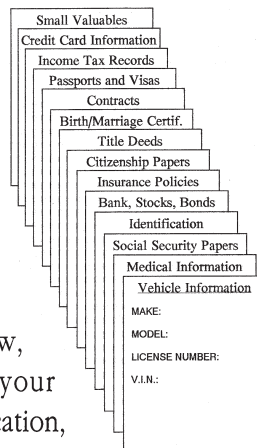
THINGS TO DO:

- ☐ Store your vital documents in a safe place.
- ☐ Make an inventory list of your household items.
- ☐ Create a family emergency plan.
- ☐ Teach your children about disasters and what to expect from them.
- ☐ Make provisions for the elderly and disabled.

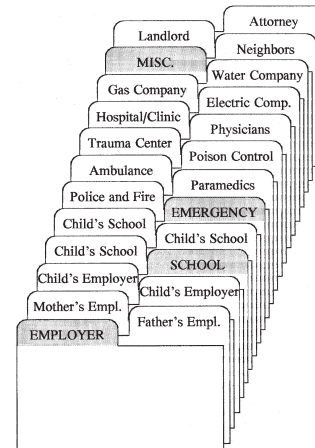
IMPORTANT FAMILY INFORMATION AND DOCUMENTS

Earthquakes, fires, storms and other disasters can destroy important documents. After a disaster, you may need financial assistance and will want to document any property loss for insurance and income tax purposes. Having ready access to the documents necessary for completing application forms, as well as those which could be difficult to replace, will eliminate undue delay and frustration.

- ☐ Take a few minutes and record this important family information.
- ☐ Identify your vital documents now, before a disaster occurs. Store your important documents in a safe location, preferably in a fire-resistant container, safe deposit box or with a friend or relative who lives at least 100 miles away.



Documents



Phone Numbers

They can also be stored in water-tight, sealable plastic bags inside the refrigerator or freezer. It is a good idea to have two sets of your important documents stored in different places so that if one set is damaged, you will have a backup.

Important Family Information

Father's employer: _____

Address: _____

Phone: _____ Work hours: _____

Mother's employer: _____

Address: _____

Phone: _____ Work hours: _____

Child/Other's employer: _____

Address: _____

Phone: _____ Work hours: _____

Child/Other's employer: _____

Address: _____

Phone: _____ Work hours: _____

School Information

Child's School: _____

Address: _____ Phone: _____

School policy is to: hold / release (circle one) child.

Child's School: _____

Address: _____ Phone: _____

School policy is to: hold / release (circle one) child.

Child's School: _____

Address: _____ Phone: _____

School policy is to: hold / release (circle one) child.

Medical Information

Physician: _____

Address: _____ Phone: _____

Physician: _____

Address: _____ Phone: _____

Hospital/Clinic: _____

Address: _____ Phone: _____

Utilities Information

Electric Company: _____ Phone: _____

Gas Company: _____ Phone: _____

Water Company: _____ Phone: _____

HOME INVENTORY

- ☐ One of the most important documents you should keep is an inventory list of your household items. The inventory should include:

the item, description of the item, serial numbers (if applicable), purchase date, purchase price (or best estimate) and the item's location in your home. It is also a good idea to supplement the written inventory with photographs and/or videotapes of your household contents.

List the items room by room. This will make it easier to add new items later on and will help to avoid duplication. This list should be updated at least once a year.

- ☐ When you have completed the inventory, make a copy and send it to your insurance agent. Keep your copy in a safe location away from the home. You can store it in a safe deposit box or give it to a trusted friend or relative.

EMERGENCY

The emergency number for police, fire and medical is:

9-1-1

Public Safety (Police and Fire):

**9-1-1 or
(408) 736-6244**

Emergency Ambulance or Paramedics:

**9-1-1 or
(408) 736-6244**

Poison Control Center (Santa Clara County)

(800) 876-4766

DO YOU KNOW WHAT ITEMS ARE IN YOUR HOME?

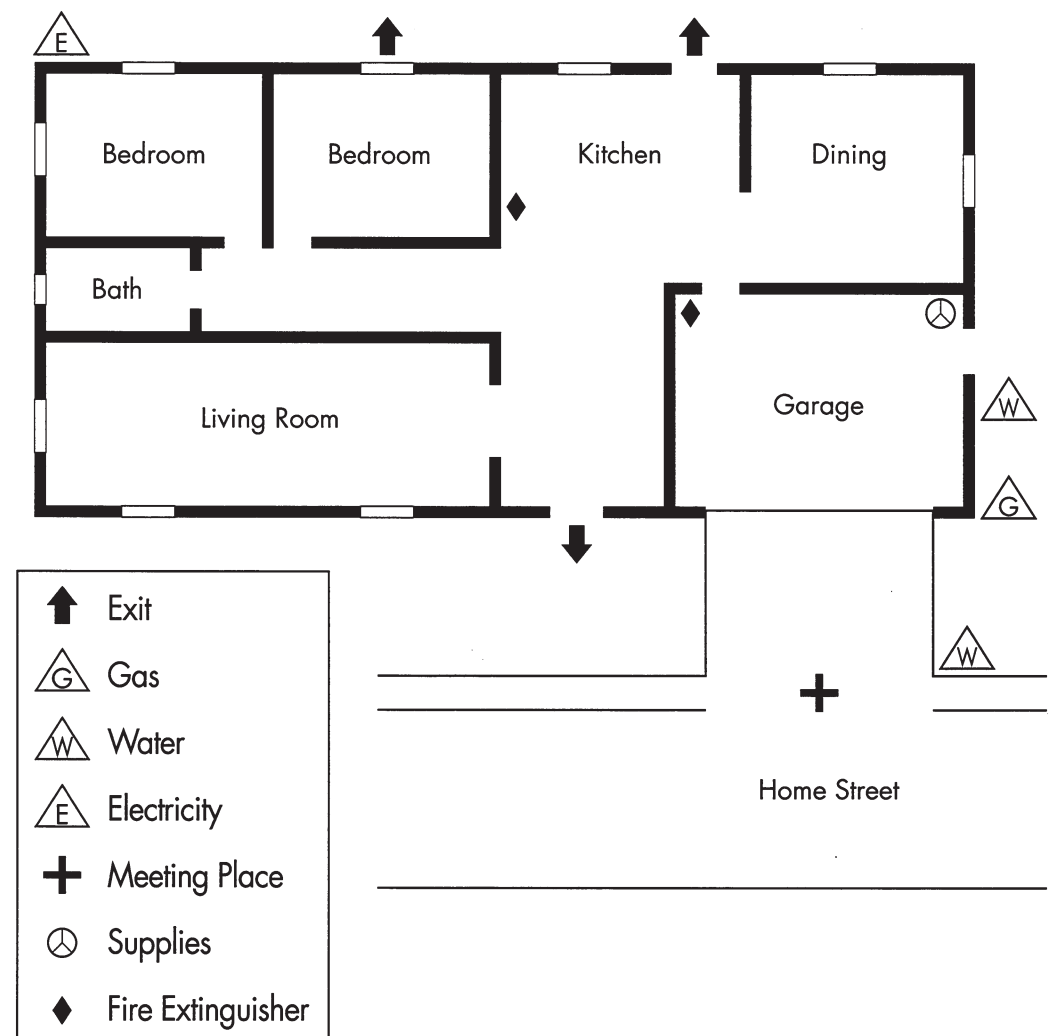
Try making a list of everything in your living room without looking. After a disaster, it is difficult to remember every item.

EVACUATION PLANS

In the event of a fire, flood, earthquake, hazardous material spill or other disaster, it may be necessary for you to quickly evacuate your home. By planning and practicing what to do before you need to, you will help yourself and your family to react correctly and spontaneously at the first sign of danger.

Planning to Evacuate

- ☐ Draw the floor plan of your residence.
- ☐ Draw at least two escape routes from each room.
- ☐ Identify where your emergency supplies, first-aid kits and fire extinguishers are kept.
- ☐ Identify utility (gas, water and electric) shut-off valve locations.
- ☐ Include your family's reunion location outside the home.
- ☐ Conduct fire and emergency evacuation drills.



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Evacuation Priority List

If you are told to immediately evacuate, you will have little time to think about what to do. What you take depends upon how much notification you have, how long you will be gone, why you are leaving and how you are leaving. To help you prepare to respond before the disaster strikes, take a few minutes to complete this list.

If you are told to leave immediately, do so. Your life is more important than property. During the 1991 Oakland-Berkeley hills fire for example, many people were able to leave with only the clothes on their backs. A few residents were able to take their pets and some sentimental items. But for some, the fire moved too quickly and they lost more than property - they lost their lives.

- ☐ Decide which items are the most important to be taken with you and choose only those that you could carry.

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

- ☐ List other items you would take if you are able.

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

- ☐ Choose the items you would like to take if you have access to a vehicle.

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

- ☐ Specify those tasks you would like to complete (if there is time) prior to leaving (shutting off utilities, locking your home, making arrangements for your pets, etc.).

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

YOU HAVE 10 MINUTES TO EVACUATE YOUR HOME. WHAT DO YOU TAKE?

Don't forget to include the less obvious items such as, cash, dentures, house and car keys, medicine, pet food, photo albums and other sentimental items.

Keep in mind that you will probably have limited space or you may have to carry them with you.

If You Must Evacuate Your Home

Follow instructions given by local officials and do not return until directed to do so.

Wear protective clothing and sturdy shoes.

Take your emergency supplies, first aid kit, and important documents with you.

Place your pets in the basement, garage or bathroom, if it is safe to do so. Make sure that they have plenty of water. Leave only dry food as canned food can spoil. (Pets will not be allowed in designated American Red Cross shelters.)

Leave a note stating the date and time you left and where you went.

Use only travel routes specified by local authorities - don't use shortcuts because certain areas may be impassable or dangerous.

Listen to your battery-powered radio and follow the instructions of local emergency officials. Tune to a local radio station for emergency information.

If you are able, help your neighbors.

REUNION PLANS

Disasters have a good chance of occurring when your family is not gathered together. The children may be at school. You may be at work, the shopping center or the theater. To prepare for these possible separations, take a few minutes and develop a reunion plan. This plan will help you get back together, or if that is not possible, to let each other know you are okay.

- ☐ Choose one place near your home in case of a sudden emergency, such as a fire.

1. _____

- ☐ Choose at least two or three places outside your neighborhood in case you cannot return home. Possibilities include neighbor's, friend's or relative's homes, local schools, churches, parks or community centers. If you arrive home and no one is there, it will give you some places to start looking.

1. _____ 2. _____ 3. _____

- ☐ Choose a friend or relative who lives at least 100 miles away who can be contacted by all family members if it becomes impossible to reach the reunion locations. You can report to them where and how you are and learn where and how other family members are as well. Be sure each family member carries the contact person's name and phone number with them.

Fill in the family contact card at right, copy and give to each family member to keep.

FAMILY CONTACT PLAN	
Emergency Meeting Place (outside your home)	_____
Meeting Place (outside your neighborhood)	_____
Phone: ()	_____
Address:	_____
Family Contact:	_____
Day Phone: ()	_____
Evening Phone: ()	_____

EARTHQUAKE SAFETY TIPS

Two keys to family safety are planning for the disaster and practicing exactly what you will do when it happens.

Before an Earthquake

Walk through your home together with your family.

- ☐ Search for hazards using the guide on pages 30 thru 34.
- ☐ Discuss where and how you can protect yourself in each room.
- ☐ Practice by physically placing yourself in these locations.
- ☐ Practice "Duck, Cover and Hold" earthquake drills regularly (every four to six months). Call out "earthquake" and discuss what each family member did correctly or what they did incorrectly.

During an Earthquake

Stay calm.

Move away from glass doors and windows.

Duck, cover and hold. Duck under a sturdy piece of furniture or under a doorway. Do not duck under beds or other objects that could collapse. Cover your head with your hands and arms to protect yourself from flying glass or falling objects. Hold onto the furniture. If it moves, move with it. Stay under it until the shaking stops.

If you brace yourself in a doorway, be careful of the door as it could swing towards you during the shaking.

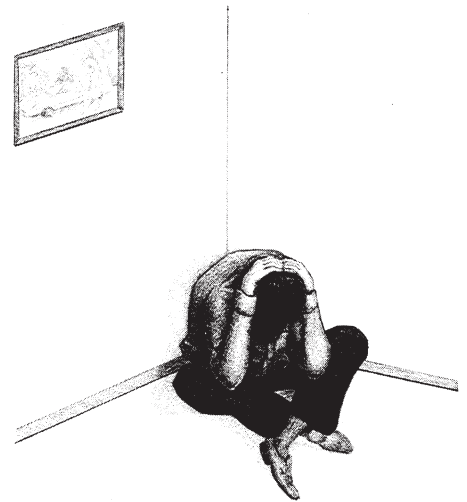
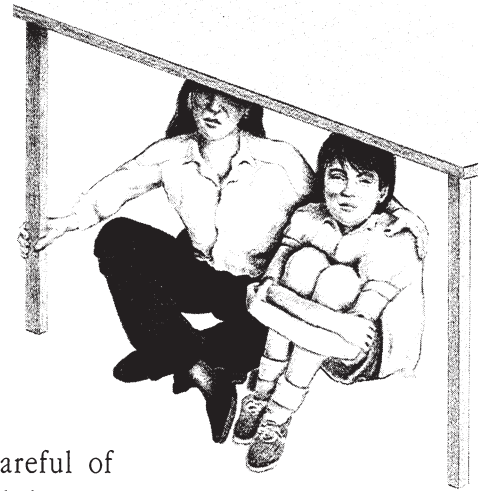
If you cannot get under a table or in a doorway, sit down next to an inside corner wall and protect your head with your arms.

Avoid heavy, standing objects such as bookcases, china cabinets, etc.

If you are indoors, stay there. Do not run outside. Quickly move to one of the safe places you have identified.

If you are outside, stay outside. Move away from power lines and poles, trees, tall buildings, walls and chimneys.

If you are in a vehicle, stop in an open area away from trees, power poles, overpasses, bridges, and tall buildings. Stay in the vehicle until the shaking stops. If electrical lines fall onto your vehicle, stay inside.



After an Earthquake

Immediately check for injuries and fires.

Wear sturdy shoes for protection from debris and broken glass.

Use a flashlight. Do not light a match until you are positive there are no gas leaks.

Check utilities, appliances, and the sewer line for damage before using them.

Listen to the radio for emergency information.

Do not use the telephone except for emergencies. Non-emergency calls may overload the circuits, preventing others from reporting emergencies.

Expect aftershocks.

TIPS FOR COPING WITH YOUR CHILDREN'S FEARS

Before the Disaster

Your children are less likely to experience prolonged fear or anxiety if they know what to expect after the disaster. Include your children in the preparation phases of your family's emergency plan.

- ☐ Talk about your own experiences and/or read aloud about disasters, such as earthquakes. Local libraries have a number of good books on earthquakes and other disasters.
- ☐ Ask the staff at your children's school about the school's disaster plan.
- ☐ Provide your children with the name of a relative, neighbor or friend who will care for them until the family can be reunited.



Name: _____ Phone: _____

Address: _____

- ☐ Help your children assemble their own emergency supply kit.

After the Disaster

Encourage your children to express their feelings of fear. Give them a chance to talk and ask questions.

Your children may need both verbal and physical reassurance that everything will be all right. Hug them frequently.

Include your children in any clean-up activities. It is comforting for children to watch the household begin to resume its normal functions, and to have a job to do.

Have your children write a story or draw a picture.

Explain to your children what has happened.

Replace your children's toys and security items (blankets, etc.) as soon as possible.

Allow your children to mourn the loss of a friend or home.

After acknowledging their fears, point out their abilities and the things they can do for themselves.



TIPS FOR THE ELDERLY OR DISABLED

Before the disaster

- ☐ Tell your neighbors now if you may not move well or quickly in an emergency. Have a whistle or siren available to summon help in an emergency.
- ☐ Know where the safe places are in each room of your home, such as under a sturdy desk or table, in a doorway, or in the corner of an inside wall.
- ☐ Plan how you will get out of each room if the doorway is blocked. Arrange your furniture to allow a clear pathway.
- ☐ If you are vision-impaired, keep an extra cane as your guide dog may be injured or too frightened to help you. Don't forget to store extra food and supplies for your dog.
- ☐ Keep your wheelchair, walker, cane and crutches near you and if possible, store extras in various locations. Family members should know where these items are stored.
- ☐ If you use any life support equipment, make sure it is fastened securely to prevent it from falling over. If the equipment runs on electricity, you may consider purchasing a portable generator.
- ☐ If you use any battery-operated equipment, have extra batteries. Also, store extra hearing aid batteries.
- ☐ Put security lights in various rooms in your home. These lights plug into the electrical wall outlets and light up automatically if there is a power failure. They can provide light for 4-6 hours.
- ☐ If you are hearing-impaired, install a fire and smoke alarm designed for the hearing impaired. A portable battery-operated TV will allow access to instructions during an emergency. Have paper and pencils available to communicate with others.
- ☐ Purchase a whistle to alert others in case you need assistance.

During the disaster

Move to one of the areas of safety mentioned previously.

Stay away from tall, unsecured furniture, glass doors and windows, fireplaces and hanging objects.

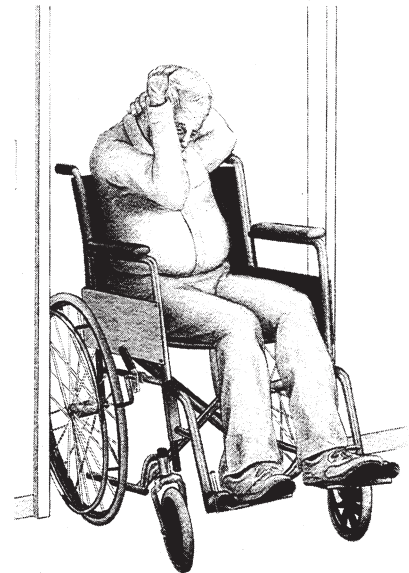
If you are in a wheelchair, stay in it. Move to a doorway, or other area of safety. Lock the wheels and cover your head with your arms to protect yourself from falling debris.

After the disaster

Remain calm.

If you are trapped inside, make as much noise as possible to attract attention to yourself. Use your whistle to alert others.

If you have a guide or hearing dog, keep the dog confined or securely harnessed as it may become frightened and could run away.



PREPARING YOURSELF AND YOUR FAMILY

After a major disaster, the City will not be able to respond to all of the immediate needs of its citizens. Your family may be without help for hours or even days. Once the disaster hits, your family will not have time to shop or search for supplies. If your emergency supplies have been gathered in advance, your family will be better prepared if you must evacuate, or if you are confined to your home.

THINGS TO DO:

- ☐ Store one gallon of water per person per day in a sturdy plastic container.
- ☐ Maintain a three to five day supply of food.
- ☐ Assemble emergency supplies for your family.
- ☐ Prepare portable disaster supply kits for your car and workplace.
- ☐ Store your supplies in a safe, accessible location, preferably outdoors.
- ☐ Make provisions for your pets

EMERGENCY WATER

Water is one of the most important survival necessities after an earthquake or other major disaster. A person can survive weeks without food, but only a few days without water.

DO NOT USE WATER FROM:

Hot water boilers.
(home heating system)

Radiators.

Water beds. (Fungicides added to the water or chemical substances in the vinyl may cause the water to become undrinkable. The chemicals are not fully removed by purifiers.)

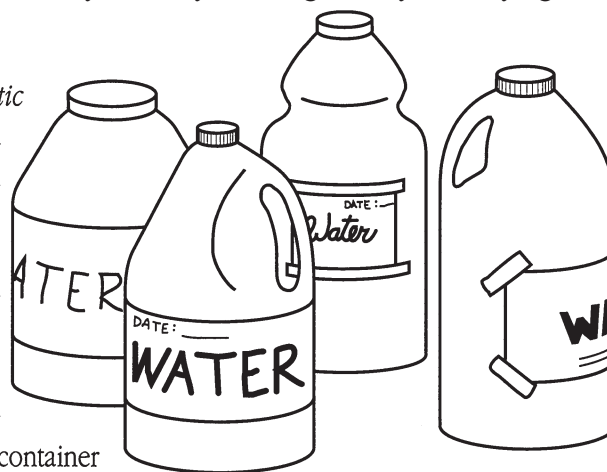
Swimming pools. Use this water for bathing purposes only. Using pool water for drinking can be harmful because of the chemicals used to treat it.

Amount

Store one gallon of water per person per day. It is a good idea to store at least a 2 week supply of water for each family member. However, if that proves difficult, it is essential that you prepare for a minimum of three days. If your water supply runs low, never ration water. Drink the amount you need today and try to find more tomorrow. You can minimize the amount of water that your body needs by reducing activity and staying cool.

Storage

Water should be stored in *sturdy plastic containers*, preferably opaque. Avoid containers that will decompose or will break easily (glass bottles). Chlorine bleach bottles work well. Plastic juice and milk containers are less desirable because the plastic becomes brittle over time and can crack, causing a leak. You can also use food-grade plastic buckets or drums. Be sure the container is thoroughly washed before using and never use a container that stored a toxic substance.



Store the water away from flammable, hazardous and toxic substances. These substances often will penetrate plastic and contaminate the water. The water should be stored in a safe and easily accessible location. Cool, dry and dark locations (closet, garage, under a bed, behind a couch) are best.

Alternative Sources of Water in Your Home

In the event you cannot use your stored supply of water, you can use the water in your hot water heater, in your home's water pipes and in melted ice cubes. Use water from the toilet tank (not the bowl) only after you have exhausted all other sources. Remember to purify the water. Avoid using the toilet tank water if a chemical additive was placed in the toilet tank.

If the water heater hasn't fallen over, you can use the water. Be sure the gas or electricity is off and then open the drain valve at the bottom of the tank. Start the water flowing by turning off the water intake valve and turning on a hot-water faucet in the home.

Caution: Do not turn on the gas or electricity when the tank is empty. Heating an empty water heater can not only damage the water heater but can also start a fire.

To use the water remaining in your home's water pipes, start by turning off the water at the main valve. Then, let air into the plumbing by turning on the highest faucet in the house and drain the water from the lowest faucet.

Emergency Outdoor Water Sources

If you need to seek water outside your home, you can use these sources after purifying it:

Rainwater

Streams, rivers and other moving bodies of water

Ponds, lakes and natural springs.

Avoid water with floating material, an odor or dark color.

Treatment of Water

Since contaminated water can contain microorganisms that cause diseases, water should be treated before using. There are several ways to treat water. Before treating, strain any sediment through layers of paper towels or clean cloths. The easiest treatment methods are boiling, chlorination and distillation.

Boiling is the safest method of treating water. To do this:

1. Bring the water to a rolling boil for 10 minutes.
2. Let the water cool before drinking.
3. If the water tastes flat, put oxygen back into it by pouring the water back and forth between two containers.

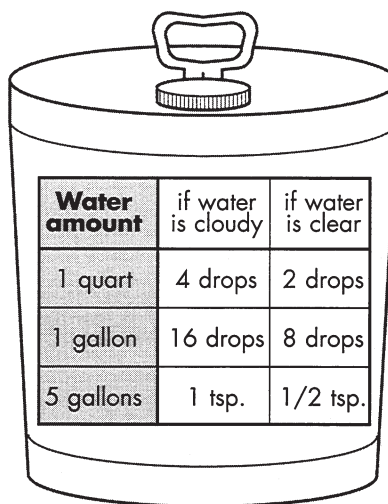
Chlorination uses liquid chlorine bleach to kill the microorganisms.

1. Use liquid bleach that contains 5.25 percent sodium hypochlorite and no soap. Other chemicals, such as iodine or water treatment products sold in camping or surplus stores that do not contain 5.25 percent sodium hypochlorite as the **only** active ingredient, are not recommended and should not be used.

2. Use the chart outline in the picture of the water container for the proper dosage amount.

3. Stir the water and let it stand for 30 minutes. If the water does not taste and smell of chlorine at this point, add another dose and let stand another 15 minutes.

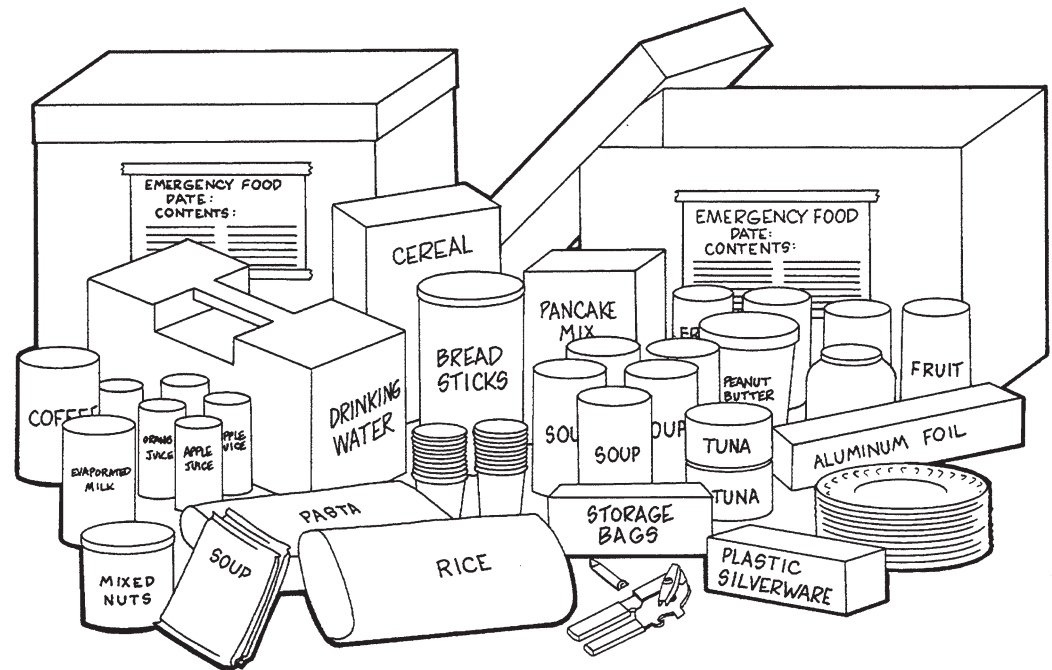
4. Use a medicine dropper or if one is not available, use a spoon and a thin strip of paper or cloth (approximately 1/4 inch by 2 inches). Put the strip in the spoon with an end hanging down about 1/2 inch below the scoop of the spoon. Place bleach in the spoon and carefully tip it. The drops will drip off the end of the strip.



Water amount	if water is cloudy	if water is clear
1 quart	4 drops	2 drops
1 gallon	16 drops	8 drops
5 gallons	1 tsp.	1/2 tsp.

Distillation of water will remove microbes and heavy metals, salts and most other chemicals. This involves boiling the water and collecting the vapors that condense back to water. The condensed vapors will not include salt and other impurities. To distill:

1. Fill a pot halfway with water.
2. Tie a cup to the handle on the pot's lid so that the cup will hang right side up when the lid is upside-down (make sure that the cup is not dangling in the water).
3. Boil the water for 20 minutes. The water that drips from the lid into the cup is distilled.



EMERGENCY FOOD

- ☐ A disaster can dramatically disrupt the food supply at any time, so plan to maintain at least a three to five day supply of food above your normal requirements. You may have plenty of food on hand right now, but check your supplies to make sure.

When storing food, it is not necessary to buy dehydrated or other types of emergency food. Canned foods, dry mixes and other supplies you already have on hand are good for a number of reasons:

they do not require cooking or water for preparation; they can be kept with your regular supply; and, with proper storage, most canned and dry food will remain fresh for about two years.

Remember to date each package and can so you will know when to rotate them into your normal food supply. This should be done once or twice a year.

Choose foods that:

Your family will enjoy, especially the kids. It is best to serve familiar foods in stressful times.

Require little or no cooking or refrigeration in case the utilities are disrupted.

Come in cans or package sizes that contain portions small enough for one meal so the food will not be wasted.

Have a long storage life.

Need little or no water for preparation in case water service is disrupted.

Will not increase thirst. Avoid food with a high salt content.

Will meet the needs of family members who are on special diets.

Guidelines for Emergency Food Amounts for Adults

Type of Food	72 hour supply	Two Week supply	Useful Information
Canned meat, fish, poultry	6 servings	28 servings	One serving equals: 2-3 oz. meat, poultry fish 3/4 oz. dried meat
Canned soup			5 oz. condensed soup
Nuts/peanut butter			1/2 cup nuts, 4 tbsp. peanut butter
Fruits and vegetables	10-1/2 cup servings	46 servings	One serving equals 4 oz. canned fruit or vegetables 1/2 oz. dried fruit 4-8 oz. canned juices
Cereals and baked goods	10-12 servings	46 servings	One serving equals: 1 bread, roll or pancake 1/2 to 1 oz. dry cereal 1 oz. quick-cook cereal 1 oz. crackers 1 oz. cookies 3/4 oz. uncooked pasta 6 oz. cooked pasta 3/4 oz. rice
Fats and oils		Up to 1 pound or 1 pint per person	Choose types that do not require refrigeration

How to Store Emergency Food

How long food lasts depends on how it is stored. The ideal location is a cool, dry, dark place. The best temperature is 40 to 60 degrees Fahrenheit. High temperatures contribute to the rapid spoiling of most types of food.

Keep food away from petroleum products, such as gasoline and oil. Some food products absorb their smell.

Protect food from rodents and insects. Items stored in boxes or in paper cartons will keep longer if they are heavily wrapped or stored in metal containers.

How to use emergency food

Use perishable food in your refrigerator or freezer before using food in your emergency kit. Be sure any food you eat that has been stored for long periods of time is safe to eat. Discard cans that bulge at the end or are leaking.

Do not eat or drink anything from open containers located near shattered glass.

Remember to include food for your pets.

- ☐ Using the shelf life chart below as a guideline, maintain a three to five day supply of the following food groups for each family member.
1. Canned stew, spaghetti, corned beef hash, soup, beans, tuna, sardines, meats, fruits and vegetables.
 2. Drinks such as canned juices, soda, coffee, tea, bouillon and cocoa.
 3. Crackers and spreads for crackers such as peanut butter, canned meat and cheese.
 4. Salt, pepper, sugar, catsup and mustard.
 5. Hard candies, raisins, canned nuts, instant puddings, dried fruit, seeds, granola bars, etc.
 6. Dried and/or evaporated milk.
 7. Ready-to-eat cereals.
 8. Oatmeal cookies or crackers.

Shelf Life for Common Foods (in months)

Beverages - powdered	24	Mustard - unopened	24
Biscuit, brownie, muffin mixes	9	Nuts - canned	12
Bouillon cubes or granules	24	Pancake mix	6-9
Cake mixes	1-2	Pasta - tightly covered	24+
Catsup - unopened	12	Peanut butter	12
Cereals		Pudding mix	12
Ready to eat	6-12	Rice mixes	6
Uncooked, in original package	12	Rice, white - tightly covered	24+
Uncooked, in metal container	24	Salad dressings - unopened	18
Cocoa mixes	12	Salad oil - unopened	6
Coffee, tea	18	Sauce and gravy mixes	6-12
Fruits		Soups	
Canned citrus fruits and juices	12	Condensed	12
Canned other fruits and juices	12	Dry mixes	12
Dried, in metal container	6	Tuna and other canned fish	12
Gelatin	18	Vegetables	
Hard candy and gum	12	Canned tomatoes	12
Honey - tightly covered	12	Canned sauerkraut	12
Jams and syrups - tightly covered	12	Canned others	18
Meat, poultry - canned (except fish)	18	Instant potatoes	18
Milk - evaporated and dry	6		

EMERGENCY SUPPLIES

Using the following checklist as a guide, assemble emergency supplies for your family. As your family's needs change, so should your emergency supply kit. Once a year, check your supplies. Replace the batteries, test the cooking and lighting equipment, update the clothes, etc.

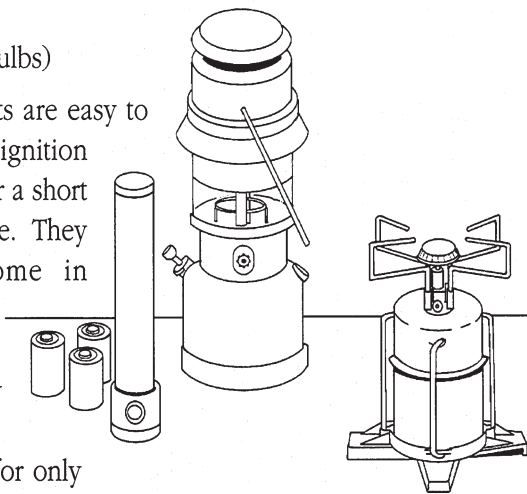
Cooking

- ☐ Aluminum foil
- ☐ Barbecues, camp stoves, hibachis, Sterno stoves, etc.
- ☐ Fuel for your cooking equipment (propane, charcoal, kerosene, butane, white gas, etc.)
- ☐ Manual can and bottle opener
- ☐ Matches (Use waterproof matches or store regular matches in a waterproof container. Waterproof matches are available at camping and sporting goods stores.)
- ☐ Paper plates and cups
- ☐ Paper towels
- ☐ Plastic eating utensils
- ☐ Storage containers with sealable lids
- ☐ Utility knife

After an earthquake, do not use your fireplace for cooking until the chimney has been inspected for cracks and damages. Sparks may escape into the attic through an undetected crack and start a fire.

Lighting

- ☐ Flashlights (Include extra batteries and bulbs)
- ☐ Lightsticks These chemical safety lights are easy to use and do not require batteries or an ignition source to operate. They provide light for a short period of time and can be used only once. They are small, easy to store and come in various colors (yellow, red, green, orange, etc.). They have a shelf life of about 3 years. The low intensity lightsticks provide light for 8 hours. The high intensity lightsticks give light for only 30 minutes however, they are 3-4 times brighter than the low intensity lightsticks. Since they are non-toxic, spark proof, wind proof, waterproof, and non-corrosive, they can be used in situations where there may be a gasoline, natural gas or toxic chemical spill. Lightsticks are available at many sporting goods stores.
- ☐ Lanterns (Include extra fuel and supplies)
- ☐ Candles



COOKING NOTE

It is important to always use your cooking equipment outdoors in an area that is well ventilated since fumes consume oxygen.

LIGHTING NOTE

Always check for gas leaks before using matches, lanterns or candles. Do not use them if there is a leak. Once you have determined the gas is not leaking, use them only in a well-ventilated area since they consume oxygen.

Tools and Clean-up

- | | | |
|---|---|--|
| <input type="checkbox"/> Ax | <input type="checkbox"/> Broom | <input type="checkbox"/> Dust masks |
| <input type="checkbox"/> Fire extinguisher (A:B:C type) | <input type="checkbox"/> Hammer | <input type="checkbox"/> Nails and screws |
| <input type="checkbox"/> Plastic bags and sheeting | <input type="checkbox"/> Plywood | <input type="checkbox"/> Rope |
| <input type="checkbox"/> Screwdriver | <input type="checkbox"/> Shovel | <input type="checkbox"/> Tape (duct, etc.) |
| <input type="checkbox"/> Wire cutters | <input type="checkbox"/> Work gloves for all family members | |

Shelter

- | | |
|--|-------------------------------|
| <input type="checkbox"/> Blankets | <input type="checkbox"/> Tarp |
| <input type="checkbox"/> Sleeping bags | <input type="checkbox"/> Tent |

Sanitation

- ☐ Personal hygiene supplies - adapt these to meet your family's needs:
comb, shampoo, diapers, deodorant, soap, diaper wipes, pre-moistened towelettes,
toothbrush, baby powder, sanitary napkins, toothpaste
- ☐ Powdered chlorinated lime or agricultural lime (Agricultural lime is available at garden supply stores)
- ☐ Water tight container with a tight-fitting lid (Pail, bucket, garbage can, etc.)
- ☐ Disinfectant ☐ Household chlorine bleach
- ☐ Plastic garbage bags ☐ Sealable plastic bags (Zip lock-type)
- ☐ Toilet paper ☐ Twist ties or rubber bands

Portable camp toilets, porta-potties or recreational vehicle toilets can be used for toilets. If these are not available, make an emergency toilet from a water tight container. Line the container with two heavy duty plastic garbage bags. Add disinfectant, household chlorine bleach or powdered chlorinated lime to deodorize and disinfect. Do not urinate into the plastic bags as urine weakens the plastic. Use a separate water tight container for urination.

In an emergency, human waste can be buried. Dig a hole two to three feet deep and deposit the waste. Add a thin layer of disinfectant and soil each time it is used.

Personal Items

- | | |
|--|---|
| <input type="checkbox"/> Books, games and toys | <input type="checkbox"/> Contact lens cases and solutions |
| <input type="checkbox"/> Denture supplies | <input type="checkbox"/> Eyeglasses - store an extra pair |
| <input type="checkbox"/> Medication - prescription and non-prescription (aspirin, allergy, etc.) | |
| <input type="checkbox"/> Money - cash and coins | <input type="checkbox"/> Paper and pencil |

Clothing

- | | |
|---|--|
| <input type="checkbox"/> Rain gear | <input type="checkbox"/> Thermal underwear |
| <input type="checkbox"/> Sturdy shoes - keep a pair near the bed to protect your feet from broken glass, nails, etc. | |
| <input type="checkbox"/> One complete change of clothing for each family member. Do not forget extra socks and shoes. | |

Pets

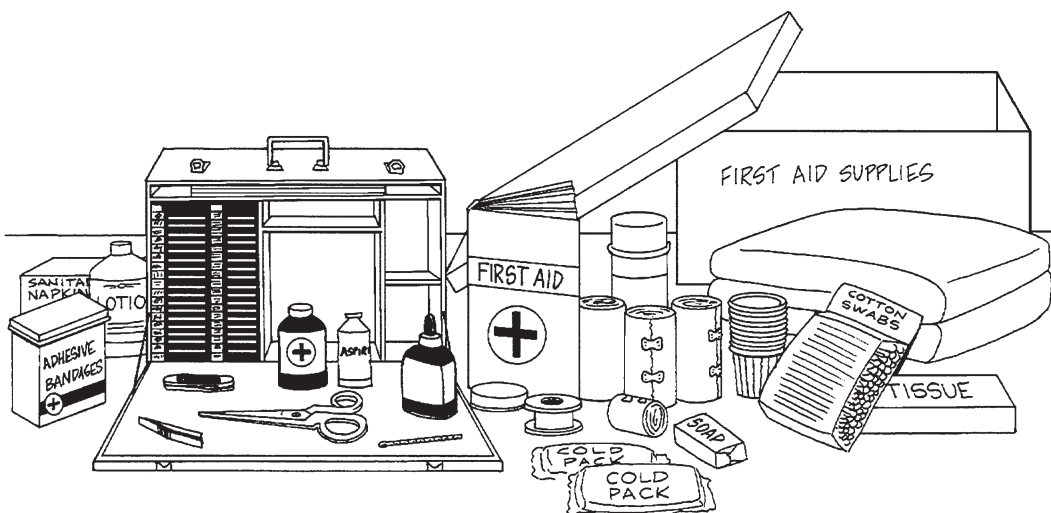
- | | |
|--|--|
| <input type="checkbox"/> Carriers and portable kennels | <input type="checkbox"/> Collars and leashes |
| <input type="checkbox"/> Food and water bowls | <input type="checkbox"/> Medication |
| <input type="checkbox"/> Non-perishable pet food | |

FIRST AID SUPPLIES

- ☐ Assemble a first aid kit. The items suggested below are only examples and should be tailored to meet your family's needs.

Keep your first aid kit current. Some items have expiration dates. Use it regularly so you are familiar with what is in it.

Your supplies will be easy to carry and protected from water if you store them in a small tool or fishing tackle box. A backpack is convenient, however it is not waterproof.



FIRST AID SUPPLY NOTE

When buying medical supplies, remember to check the expiration dates. Buy only fresh supplies for the longest shelf life.

Medical information and prescriptions can be stored in the refrigerator. This provides excellent protection from fires.

Medications

- | | |
|---|---|
| <input type="checkbox"/> Antacids | <input type="checkbox"/> Antibiotic ointment for dressing wounds |
| <input type="checkbox"/> Antiseptic solution | <input type="checkbox"/> Aspirin (to reduce swelling) and non-aspirin tablets |
| <input type="checkbox"/> Diarrhea medicine | <input type="checkbox"/> Eye drops |
| <input type="checkbox"/> Laxatives | <input type="checkbox"/> Vitamin supplements |
| <input type="checkbox"/> Hydrogen peroxide to wash and disinfect wounds | |
| <input type="checkbox"/> Individually wrapped alcohol swabs (available at drugstores) | |
| <input type="checkbox"/> Prescriptions from doctor for any long term medications (keep these current) | |
| <input type="checkbox"/> Syrup of Ipecac (to induce vomiting) | |

Bandages/Dressings

- | | |
|--|---|
| <input type="checkbox"/> Ace bandages | <input type="checkbox"/> Adhesive tape roll - 1/2" or 1" wide |
| <input type="checkbox"/> Bandages | <input type="checkbox"/> Bandage, sterile roll - 2" or 4" wide |
| <input type="checkbox"/> Butterfly bandages | <input type="checkbox"/> Clean sheets torn into strips |
| <input type="checkbox"/> Cotton balls and cotton-tipped swabs | <input type="checkbox"/> Plastic strip bandages - assorted sizes |
| <input type="checkbox"/> Rolled gauze - 1 each of 1", 2", and 3" | <input type="checkbox"/> Triangular bandages (three each 36" x 36" x 50") |

Additional supplies

- | | |
|--|---|
| <input type="checkbox"/> Ammonia inhalant (smelling salts) | <input type="checkbox"/> Anti-bacterial soap |
| <input type="checkbox"/> Bar soap | <input type="checkbox"/> First aid book (i.e., "Standard First Aid and Personal Safety" from the American Red Cross.) |
| <input type="checkbox"/> Instant heat packs | <input type="checkbox"/> Instant cold packs for sprains and burns |
| <input type="checkbox"/> Latex gloves | <input type="checkbox"/> Medicine dropper |
| <input type="checkbox"/> Metallic space blankets | <input type="checkbox"/> Needle and thread |
| <input type="checkbox"/> Paint brush (natural bristle for removing glass pieces) | <input type="checkbox"/> Paper cups |
| <input type="checkbox"/> Plastic bags | <input type="checkbox"/> Plastic spoons |
| <input type="checkbox"/> Pocket knife | <input type="checkbox"/> Pre-moistened towelettes |
| <input type="checkbox"/> Safety pins | <input type="checkbox"/> Saline solution |
| <input type="checkbox"/> Sanitary napkins | <input type="checkbox"/> Scissors |
| <input type="checkbox"/> Skin lotion | <input type="checkbox"/> Splinting materials |
| <input type="checkbox"/> Sunscreen lotion | <input type="checkbox"/> Thermometer |
| <input type="checkbox"/> Tissues | <input type="checkbox"/> Tweezers |
| <input type="checkbox"/> Waterproof matches | <input type="checkbox"/> Writing materials - pen, pencil and paper |

Creative First Aid Supplies

If your first aid supplies are destroyed or become inaccessible after a disaster, you can use some common household items you may already have available. Bandages, dressings, splints and stretchers can be made from everyday items.

Bandages/Dressings:

Clean rags, towels, sheets and linens
Diapers - disposable and regular
Handkerchief, sanitary napkins, scarf

Splints:

Boards, brooms, oars, straight sticks, umbrellas
Pieces of corrugated cardboard bent to form a three-sided box
Pillows, rolled blankets, newspaper or magazines

Dressings and bandages can be held with:

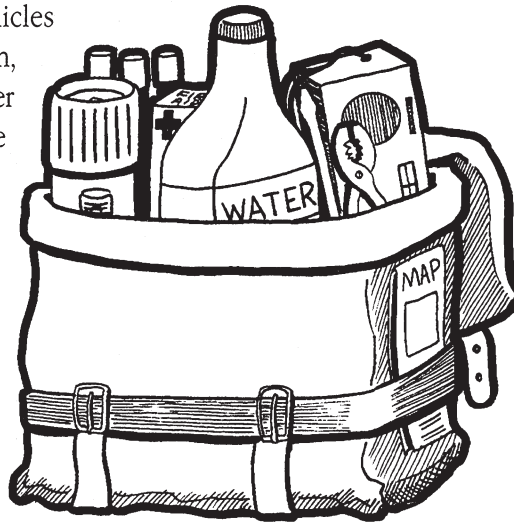
Belts, handkerchiefs, neckties
Nylon stockings, plastic bags, rope
Safety pins, string, strips of cloth torn from shirts or sheets

PORTABLE DISASTER SUPPLY KITS

Many of us spend several hours in our vehicles commuting, running errands, etc. In addition, we also spend several hours at work. A disaster can occur at any time, including while you are in your vehicle or at work. Depending upon the situation, you may need to stay in your vehicle or at work for several hours.

Vehicle Disaster Supply Kit

- ☐ Assemble a disaster kit for your car using the following items, adding those personal items as necessary. Storing these supplies in a small backpack will make them convenient to carry if you have to walk home.



Battery-operated radio

Bottled water

Fire extinguisher: A:B:C type

First aid book

Flashlight and batteries

Heavy work gloves

Money (cash and coins)

Snack-type, nutritious foods - dried fruits, nuts, granola bars, crackers, seeds, jerky, etc.

Tools - screwdriver and pliers

Blanket

Comfortable clothes and shoes

First aid kit (include personal medications)

Flares

A book to read

Local maps and compass

Personal hygiene needs

Toilet tissue, newspapers and zip-type plastic bags

Your disaster plan or what other family members are doing and where they may be contacted.

Work Disaster Supply Kit

- ☐ Assemble a work disaster kit with some or all of the following:

Battery-operated radio

Bottled water

Emergency instructions

First aid book

Flashlight and extra batteries

Snack-type nutritious foods

Blanket

Comfortable clothes and shoes

Essential medication

First aid kit

Heavy work gloves

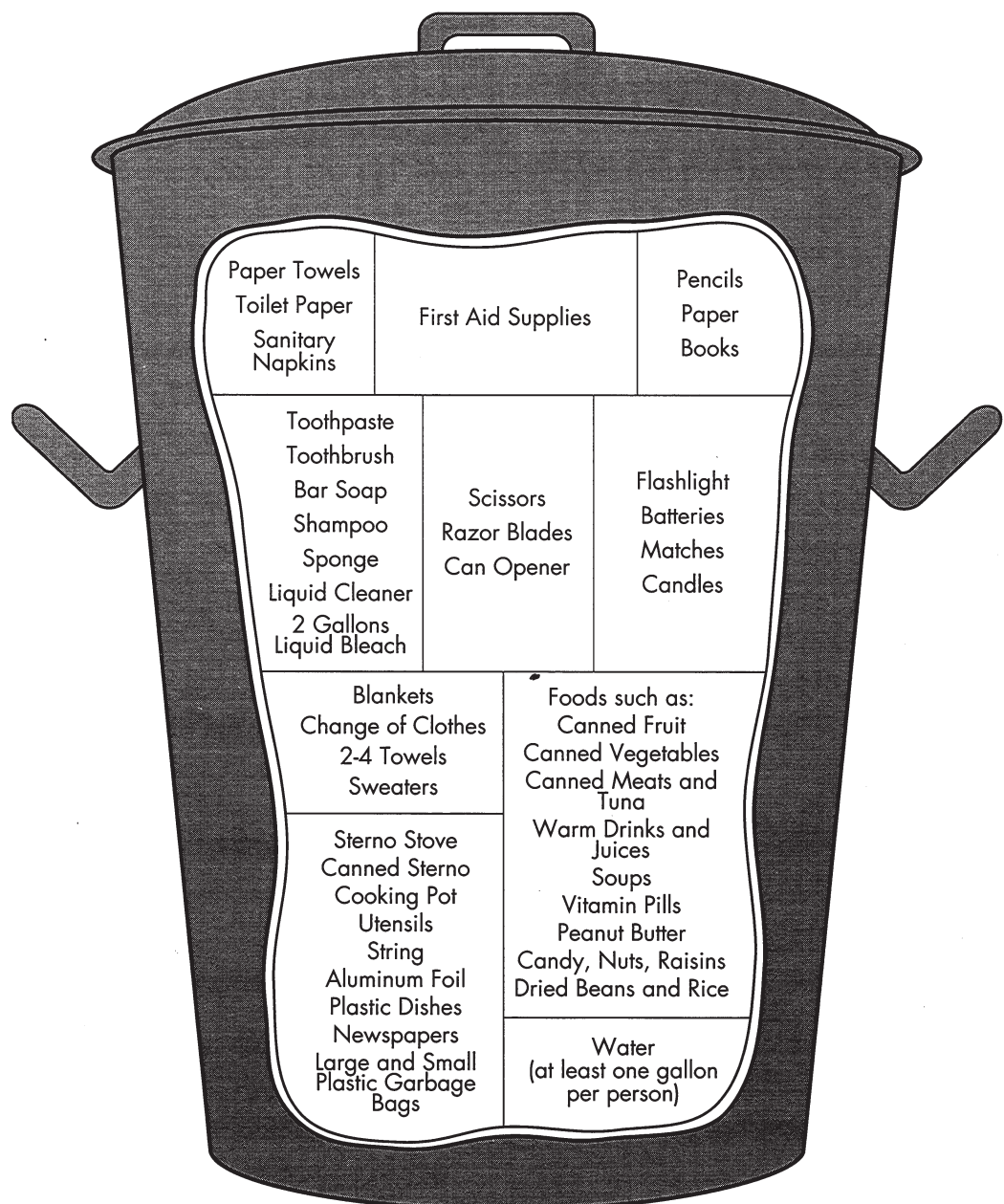
Toilet tissue and zip-type bags

STORAGE OF EMERGENCY SUPPLIES

Decide where and how to store your emergency water and food and supplies. This decision is just as important as deciding to gather the supplies.

- ☐ Store your supplies in a sturdy container.

Your emergency supplies can be stored in a large, covered trash container. They can also be placed in a backpack, duffel bag or a box, however, these containers are not as sturdy and do not offer the same protection as a covered trash container. To protect items from moisture, place them in airtight plastic bags before putting them in the container.



Storage of Emergency Supplies, continued

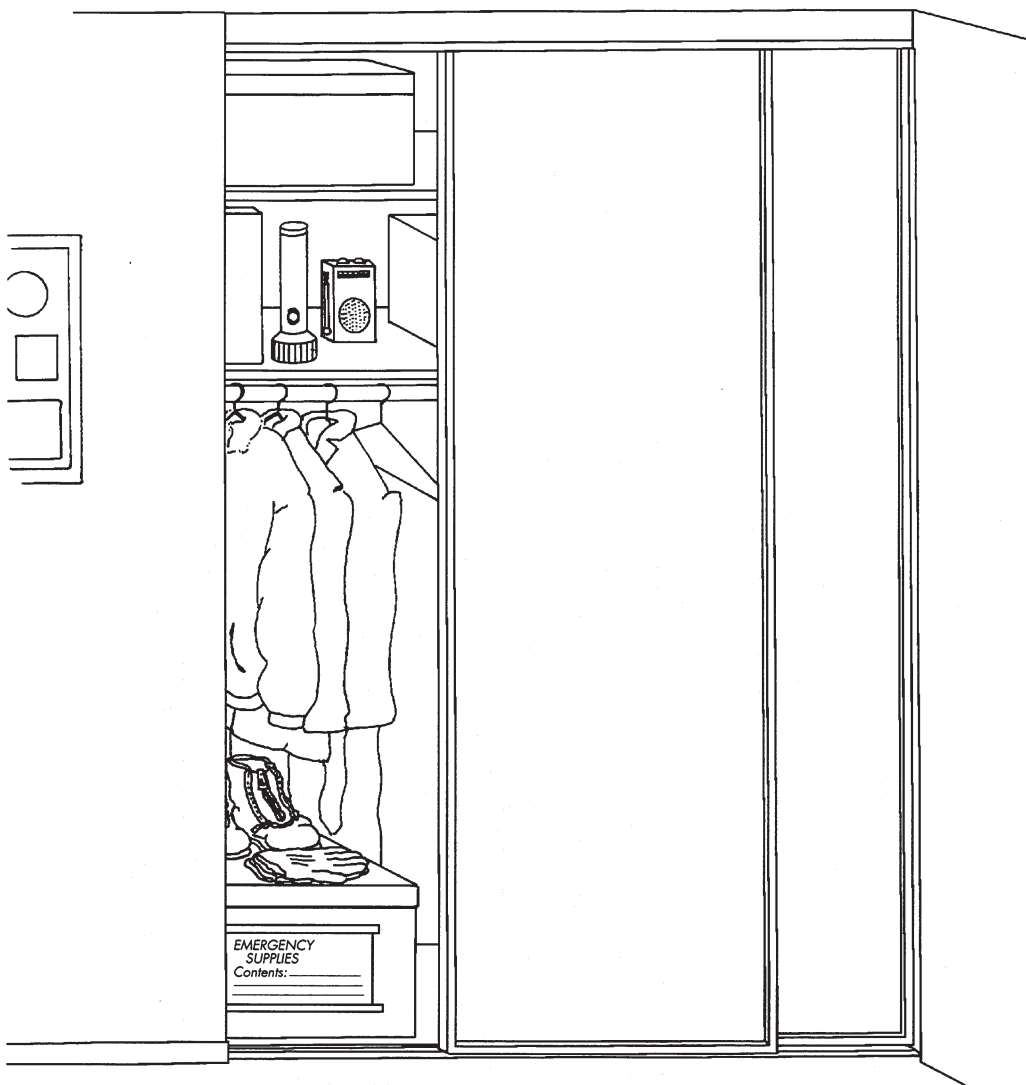
- ☐ Store your supplies in a safe, accessible location.

Your supplies will do you little good if you cannot get to them or they are destroyed or damaged during the disaster. To prevent all of your supplies from being damaged or destroyed, consider storing them in different locations.

Storage locations should be cool, dry and dark. Some possible sites are:

- on a closet floor
- behind a large piece of furniture (i.e., couch)
- under a sturdy table on a pallet in the garage
- under a bed
- in a tool or garden shed

Avoid storing supplies in direct sunlight, near hazardous chemicals (gasoline, pesticides, etc.) or in a location where heavy items could fall on top of them.



Preparing Yourself and Your Family, continued

Provisions For Your Pets

PREPARE A DISASTER PREPAREDNESS KIT FOR YOUR PETS

Include items such as a pet supply box for each pet, which should contain the following items:

- A pet first-aid book
- A pet first-aid kit
- A two-week supply of pet food (rotate the food so it doesn't get stale)
- A one-month supply of your pet's regular medications
- Non-spill food and water bowls
- Cat litter and litter box
- Plastic bags (for pet waste disposal)
- Sheets (one to cover each pet carrier)
- Blankets
- Freeze dried liver treats (to entice a dog that may be scared or stressed)
- Water
- Can-opener
- Newspaper
- Disinfectant
- Paper towels
- Comb/brush
- Favorite toys and treats
- A pet carrier
- Leashes
- Copy of current vaccination records
- Instruction on any special feeding or dietary requirements

Identification

Your pet should always wear a collar and identification tag. Make sure all information on the tag is current as pets may wander far from home in the stress and confusion following a disaster. Current identification may be the only way to locate your pet. You may also want to ask your veterinarian about microchips and/or tattooing as an additional identification back up.

Vaccinations

Your pet needs to be current with his/her vaccinations. Keep medical records in a safe place. You may be required to show proof of current vaccinations if you need to temporarily board your pet. (Note: pets are not allowed at American Red Cross shelters.)

Transportation

Each pet in your household should have his/her own pet carrier. A carrier makes transportation easy in the event of an evacuation and keeps your pet safe from falling debris. Make sure the carrier is large enough for your pet to sit down, lay down, stand up, and turn around. It is important to familiarize your pet with his/her carrier before disaster strikes.

Leashes

Make sure you have a leash for every dog in your house. Slip leads can double as a collar and leash in an extreme emergency.

Sleeping Quarters

Do not put your pet's bed near a window or under shelving. Windows can shatter during an earthquake showering your pet with glass. Shelving can collapse, tossing books and other heavy objects down onto your pet.

Check Your Yard

Make sure all fencing is sturdy and secure. Also look for holes and other possible escape routes.

Plan Ahead

Human shelters may not welcome your pet. Make pre-disaster plans for post-disaster, temporary placement of your pet. Identify local boarding kennels, veterinarians with boarding facilities, motels that accept pets and/or make arrangements with friends or relatives.

If you are evacuated to a temporary shelter, and have not been able to locate your lost pet, you should plan to visit your local animal shelters daily, as personnel at the shelter will not know how to locate you if you are not at your home.

PROTECTING YOUR FAMILY AND YOUR HOME

Taking steps to make your home safe is one of the most important tasks your family should complete prior to a disaster. There are many hazards in our homes that could cause us harm during a disaster. Death, injuries and damage are often caused by falling debris, collapsing structures, fires, spilled hazardous chemicals, etc. Eliminating these hazards offers better protection for your family and home.

THINGS TO DO:

- ☐ Identify, secure and correct any potential hazards in your home.
- ☐ Examine the structural safety of your home.
- ☐ Locate your utility shut-off valves.
- ☐ Store hazardous household products in a safe location.
- ☐ Install smoke detectors and learn how to use a fire extinguisher.

SECURING YOUR HOME

Imagine what it would be like if your home had wheels and was speeding down a twisting, bumpy road. Your home would bend and sway, causing the interior contents and exterior structures (chimneys, roofs, etc.) to fall or collapse. A major earthquake would have a similar effect.

- ☐ Take 30 minutes to walk through your home with all family members. Identify potential hazards by using this worksheet. Correct these hazards by completing the suggested tasks.

Water heater

The typical water heater weighs about 450 pounds when full. Such a massive object resists being moved suddenly. In an earthquake, the floor on which it is standing tends to move out from under the heater, causing it to topple over. This movement also breaks the rigid gas and water line connectors.

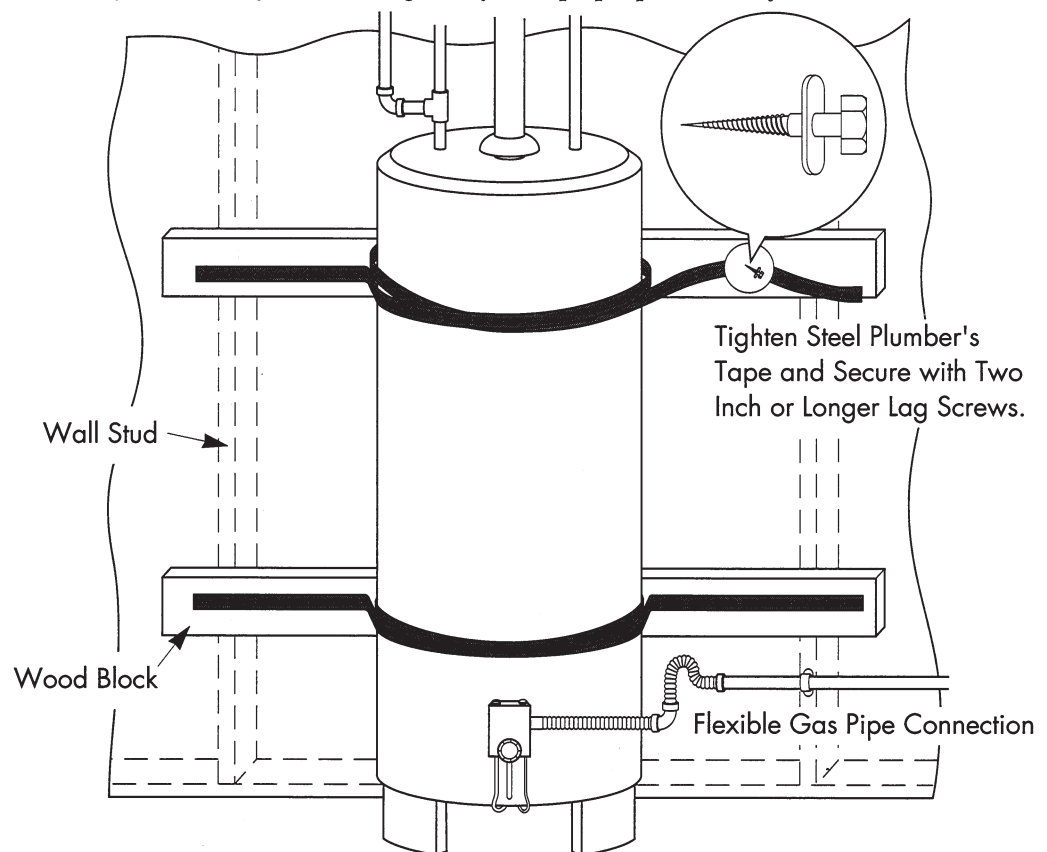
Is your water heater securely fastened to the wall studs with a strap or plumber's tape?

_____ yes _____ no

To secure your water heater:

- ☐ Wrap steel plumber's tape around the entire heater at least twice. Then secure the tape to two different wall studs with two inch or longer lag screws.
- ☐ Install flexible gas and water connectors.

Refer to the Uniform Building Code for the proper placement of a water heater.



Furniture

A major earthquake has the potential of causing substantial damage to your possessions. A large portion of the actual damage in an earthquake is non-structural (furniture, light fixtures, supplies, etc.) A general rule is: If the length or width of an item is less than two-thirds the height, it may overturn in an earthquake.

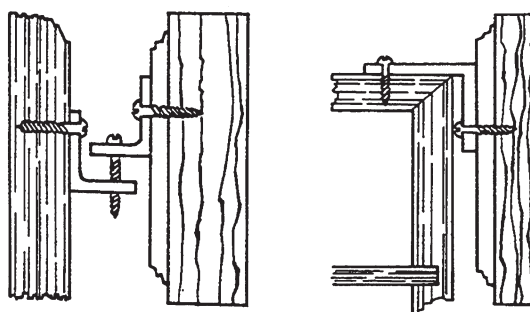
Identify top-heavy, free standing furniture such as, bookcases and china cabinets which could topple in an earthquake.

How you secure your furniture will depend upon its value, location and your imagination. Listed below are a few ideas to help you get started.

- ☐ Secure your tall or top-heavy furniture by using:

"L" brackets, corner brackets or anodized aluminum molding to attach tall or top-heavy furniture to the wall.

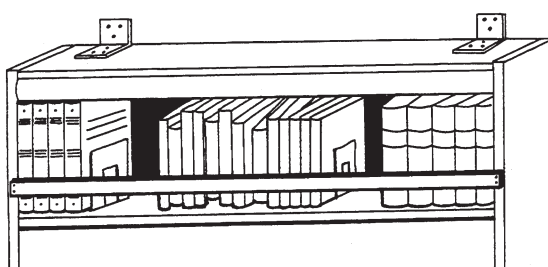
Corner brackets or eyebolts to secure items located a short distance from the wall.



"L" Brackets Attach to Wall and Top or Back of Furniture

- ☐ Attach a wooden or metal guardrail on open shelves to keep items from sliding or falling off. Fishing line can also be used and is less visible.

- ☐ Place heavy and/or large objects on lower shelves.



Heavy or breakable objects

Identify heavy or breakable objects on high shelves or in cabinets.

- ☐ Securely fasten or move these objects to lower locations.

Appliances

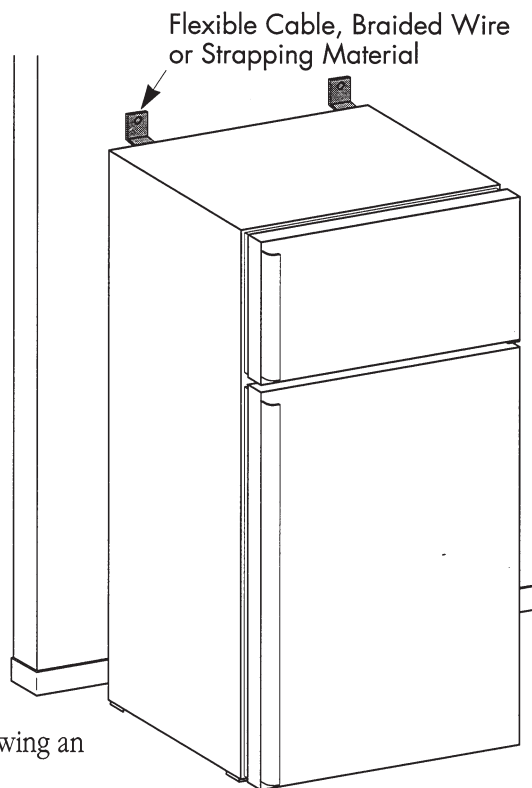
Identify appliances which could move enough to rupture gas or electrical lines.

_____	_____
_____	_____
_____	_____

- ☐ Secure your large appliances with flexible cable, braided wire or other strapping material.

Because the floor will be moving and shifting under your appliances, remember to allow for a small amount of flexibility.

- ☐ Install flexible gas connectors on all gas appliances. This will significantly reduce your chances of having a major fire following an earthquake.



WINDOW SHEETING

During earthquake, glass from windows can break and send dangerous pieces flying in all directions. You can greatly reduce the hazard potential of flying glass by using transparent window film (commonly used to reduce solar heat and glare).

A 2-4 mil thick piece of film placed on the inner surface of the glass can make the glass stronger and shatter resistant. The film's adhesive holds the broken glass fragments together. Since the film keeps the glass intact, it is a temporary substitute for window boarding.

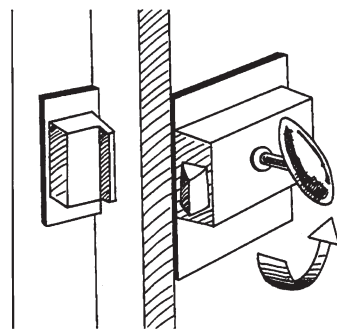
Cabinets and latches

Identify kitchen and bathroom cabinet doors which will not stay closed during heavy shaking.

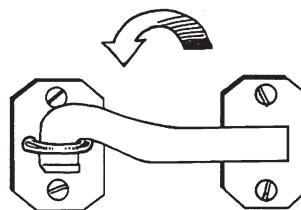
_____	_____	_____	_____
_____	_____	_____	_____

- ☐ Secure your cabinets or cupboard doors by installing any one of the following latches:
Automatic latches Bolt action Guillotine Hook and eye

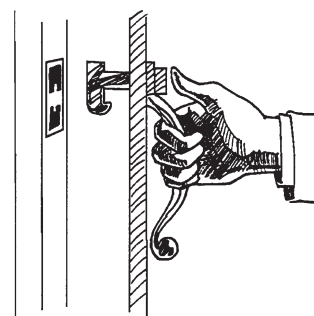
Spring loaded or heavy duty magnetic latches help secure cabinet contents. The purpose of the latches is to keep cabinet doors closed and prevent dishes and other items from falling and breaking.



Turn Knob



Guillotine



Release Button in Handle

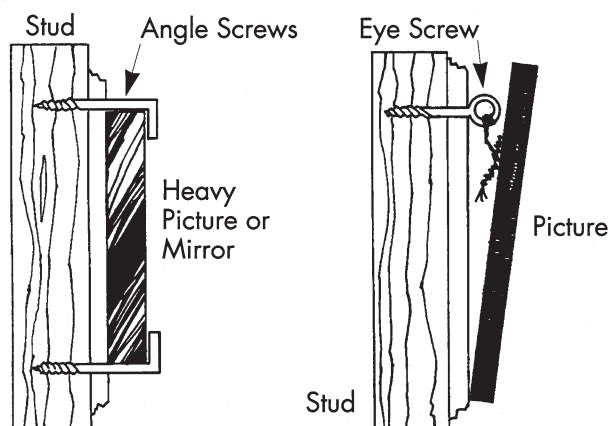
Pictures, mirrors and hanging objects

When a major earthquake strikes, you may be severely injured by falling and flying objects. Remove heavily-framed pictures and mirrors from above beds, couches and chairs. Determine whether the full swing of your hanging plants and lamps will strike a window, and if they will, move them.

Identify heavily-framed pictures, mirrors, etc., which are placed over beds, couches and chairs.

_____	_____	_____	_____
_____	_____	_____	_____

- ☐ Relocate these or securely mount them.
- ☐ Secure pictures and/or mirrors by placing angle screws on both sides, the top and the bottom or secure these with wire through an eyebolt screwed into the stud.



Identify hanging plants, especially those in heavy baskets, and hanging lights which are near windows.

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

- ☐ Move these to a safer location or securely fasten them to the walls or ceiling.
- ☐ Secure hanging objects by closing the opening in the hook or with wire through an eyebolt screwed into the stud.

Electronic equipment and appliances

Identify electronic equipment (stereos, televisions, VCR's, computers, etc.) and appliances (microwaves, toasters, etc.) which may slide off their shelves.

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

- ☐ Secure these items by using double-stick tape or Velcro-type fasteners, or provide a restraining edge on the cabinet or shelf.

Hazardous household products

Identify poisons, toxic chemicals or solvents in breakable containers which are located in high or dangerous locations.

- ☐ Move these to a safe, well-ventilated storage area. Keep them away from your water storage and out of the reach of children and pets. See page 39 for more information.

STRUCTURAL PREPARATION

Now that you have secured things inside your home, take a few minutes to examine the structural safety of the house itself. If your house is of conventional wood construction, it will probably be relatively resistant to earthquake damage, particularly if it is a single story. But this is the case only if the roof, ceilings, walls, chimneys and foundation remain connected.

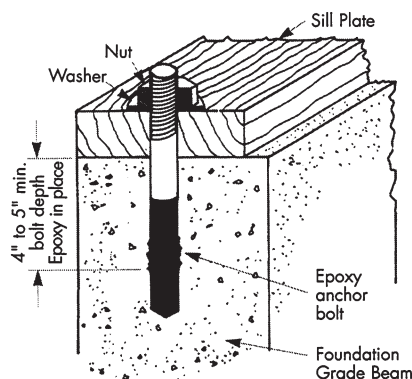
These suggestions will take time and money, but implementing them will ensure even greater stability for your home and its contents. Consider using a licensed professional to perform the structural work.

Foundation

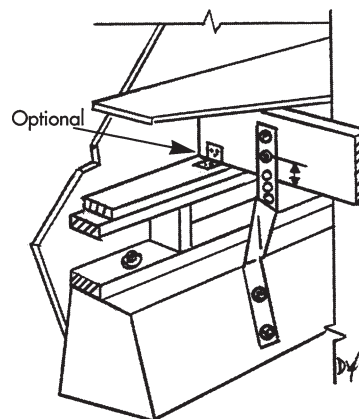
Any of the three methods shown will meet today's standards for seismic retrofit.

- ☐ Check to see if your house or garage is securely fastened to the foundation. Some homes constructed before the mid-1950s and most built before the 1940s do not have bolts securing the wood structure to the concrete foundation.

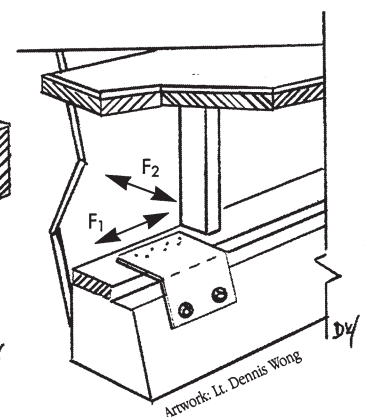
Note: Most homes in Sunnyvale were built after 1950. If your home is not bolted to the foundation, take the following steps:



Using a hammer drill and carbide bit, drill a hole through the sill plate into the foundation. The holes should be approximately six feet apart. Epoxy in place a 1/2" x 7" anchor bolt into each hole and tighten the bolt. A large washer should also be used.



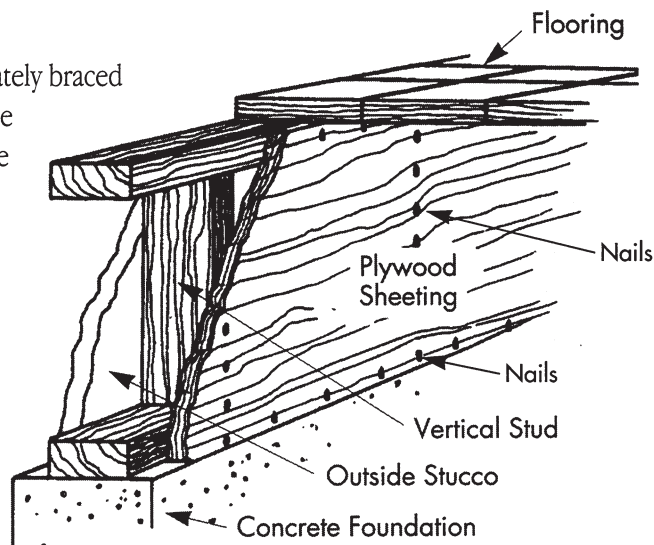
Foundation joist anchor as shown, nailing or bolting directly into the floor joist. This provides a direct connection between the foundation and joist, and provides mainly uplift resistance.



In cases of limited access, use fdn anchors as shown to eliminate vertical drilling by nailing into the top of mud sill. This will facilitate installation when vertical space is limited, and resist the mainly lateral forces between the foundation and mud sill.

Cripple Walls

- ☐ Inspect your house for inadequately braced cripple walls located between the frame and foundation. If they are exposed, they are a weak link in the house construction and are subject to collapse following a major earthquake. Nail plywood sheeting onto the vertical studs to strengthen the walls. Remember to also check the garage, particularly if it is supporting living quarters.

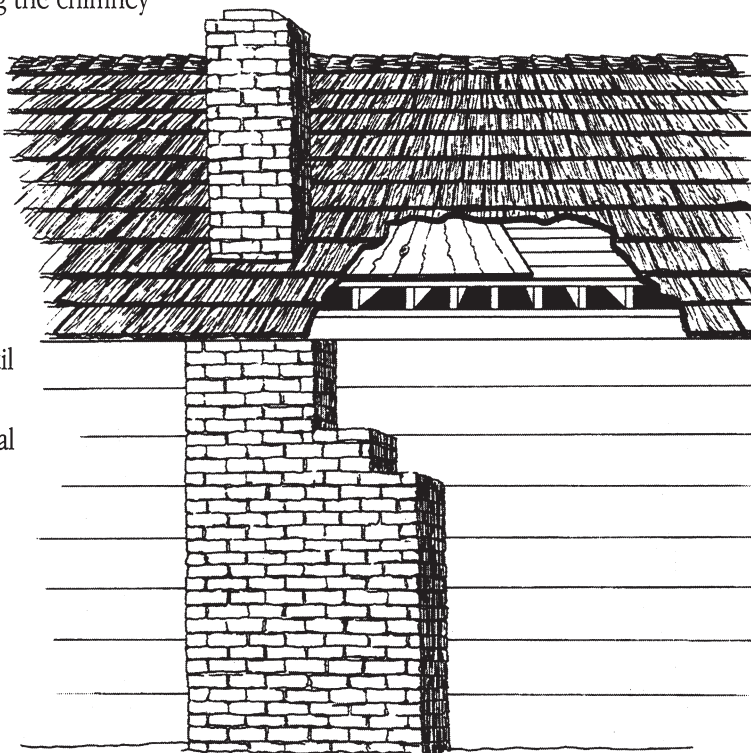


Chimney

Chimneys are often constructed of unreinforced masonry which makes them vulnerable to earthquakes.

- ☐ Check the brick mortar for signs of deterioration.
- ☐ If the chimney is not tied to the house (most are not), use metal straps to tie the chimney to the ceiling joists.
- ☐ Protect yourself from falling chimney bricks that might penetrate the roof by reinforcing the ceiling surrounding the chimney with 3/4" plywood nailed to ceiling joists.
- ☐ Check the roof and chimney for loose tiles and bricks.

After an earthquake, do not use your fireplace until the chimney has been inspected by a professional for cracks and other damages. Sparks may escape into your attic through an undetected crack and start a fire.



Beams, Posts, Joists and Plates

- ☐ Strengthen the areas of connection between joists, beams, posts and plates using the following hardware:

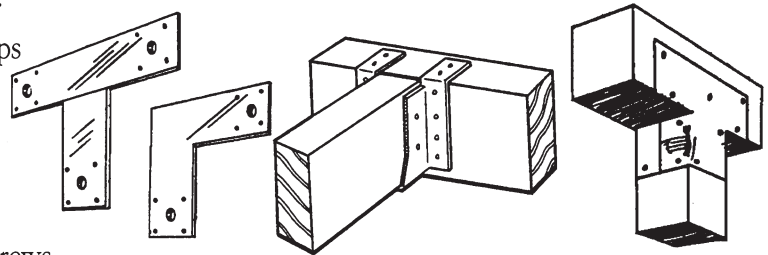
“T” and “L” straps

Mending plates

Joist hangers

Twin post caps

Nails and lag screws



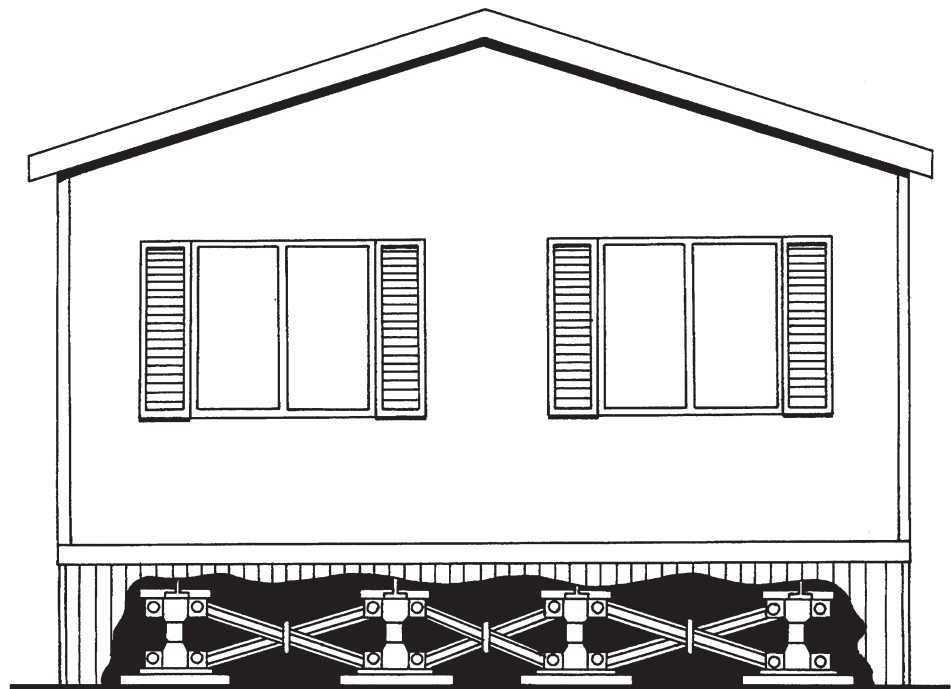
Pay particular attention to exposed framing in garages, basements, porches and patio covers.

Mobile Homes

Mobile homes suffer the most damage from falling off their supports. To reduce this damage, leave the wheels on to limit its fall, and:

- ☐ Check the foundation to make sure that it has been reinforced and that the undercarriage has been securely tied to the foundation. Without this, the mobile home may be thrown off its foundation even during small tremors.
- ☐ Tie double-wide mobile homes together. The two units are generally of different weights. When an earthquake strikes, they tend to react differently and pull apart.

Structural support bracing systems are commercially available. Designs and costs vary, but a good bracing system can be a worthwhile investment. If you are interested in a seismic bracing system, contact your mobile home owner's association, local mobile home dealer or check the phone book for vendors.

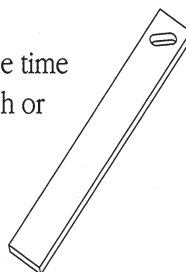


UTILITY SHUT-OFF

- ☐ With your family, locate your gas, water and electric utility shut-off valves.
- ☐ Learn how and when to turn off the utilities.
- ☐ Teach all family members how and when to turn off all utilities.

Gas

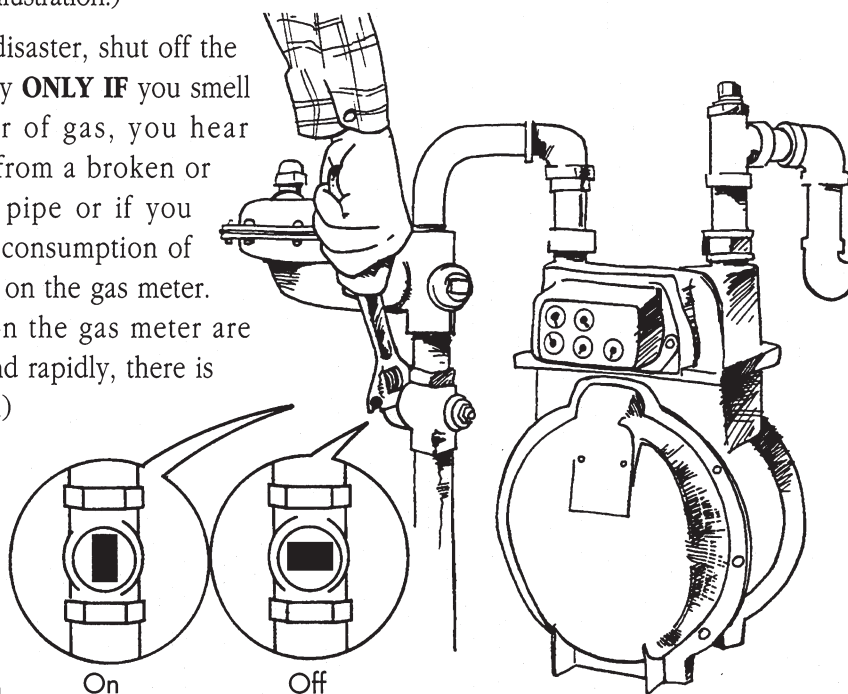
- ☐ Attach an adjustable wrench to the gas meter. You will not want to take time to find one after a disaster. You may use a pipe wrench, crescent wrench or a slotted wrench designed specifically for turning off the utilities.
- ☐ Consider marking the shut-off valve with reflective tape to identify it in the dark.



The main shut-off valve is located on the inlet pipe next to your gas meter. Using a wrench, turn the valve one quarter turn in either direction so that it is perpendicular to the pipe. (See illustration.)

After a major disaster, shut off the gas immediately **ONLY IF** you smell a strong odor of gas, you hear gas escaping from a broken or disconnected pipe or if you notice a large consumption of gas registering on the gas meter. (If the dials on the gas meter are spinning around rapidly, there is probably a leak.)

If leaking gas starts to burn, do not attempt to put the flame out. If possible, move other flammable



material away from the fire. If it is safe to do so, turn off the gas.

Do not use matches, lighters, open flame appliances or operate electrical switches until you are sure there is no gas present. Sparks from electrical switches could ignite leaking gas fumes and cause an explosion.

CAUTION: Once the gas is shut off at the meter, do not try to turn it back on. Call a utility company or a qualified plumber to restore the gas service.

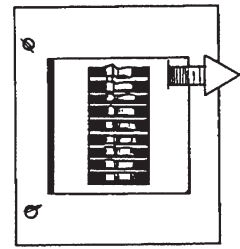
Electricity

After a major disaster, check for damage to the wiring and shut off the electricity if you suspect a problem. Sparks from electrical switches could ignite leaking gas and cause an explosion. You will probably have one of these two types of electrical breakers in your home.

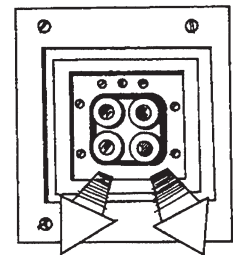
If you plan to use a portable electric generator, you need to be familiar with the current law regulating their use. If the generator is capable of being connected temporarily to your electrical system (which is normally supplied by PG&E) it must be connected only after opening your main switch. This disconnects your electrical system from PG&E. The purpose of this requirement is to isolate your electrical system from PG&E's power lines while the generator is being used. If the generator is permanently installed, it must be connected with a double-throw switch.

The reason for the law is because a power surge from electric generators may cause injury to line personnel and/or property damage. If used during power outages, they can send electricity back through PG&E's power lines. If there are PG&E crews working on the lines, they won't know if a generator is being used nearby. If the electricity is going through the line from the generator, it can seriously injure or kill the work crews. Also, if the generator is connected this way, it can be damaged or destroyed when power is restored.

The law requires that you notify the utility company (PG&E) of the location of any electric generator used in a home or business.



Circuit Breaker



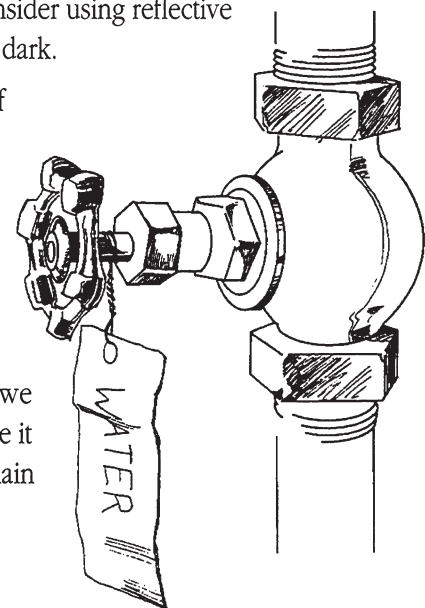
Pull-out Cartridge Fuses

Water

- ☐ Label the water main for quick identification. Consider using reflective tape to mark the shut-off valve to identify it in the dark.

After a major disaster, check for water leaks. Shut off the water **ONLY IF** you experience problems such as, low water pressure or lack of water when you turn the faucet on.

Water should be turned off at the water main leading into the home. This is the emergency meter shut-off closest to the house. Sunnyvale lines are gravity-filled and located below most houses. For this reason, we recommended that you shut off the water here because it may flow out of the water heater and back into the main line if you do not.



HAZARDOUS HOUSEHOLD PRODUCTS

Many household products contain chemicals that are poisonous, corrosive, flammable and/or chemically reactive. These products can topple over and spill during an earthquake, causing a chemical spill inside the home. Garages, kitchens and bathrooms are common locations for hazardous household chemical spills.

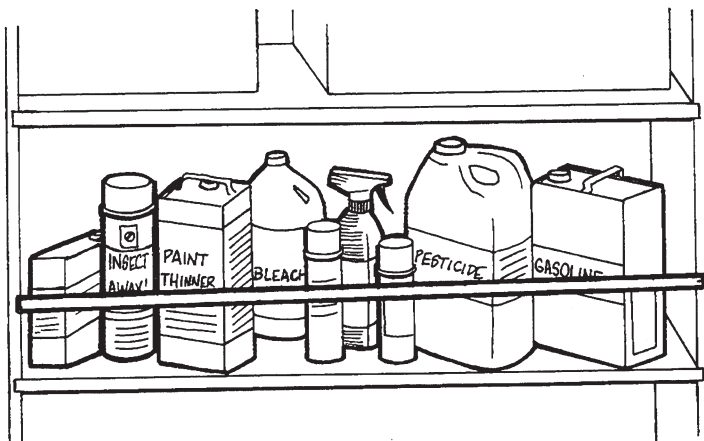
Hazardous household products include:

automotive fluids, household cleaners, disinfectants, polishes, bleach, liquid detergents, photographic chemicals, pesticides/herbicides, fertilizers, pet care products, paint products and pool chemicals.

Storage of hazardous products

- ☐ Store hazardous household products on the floor, on a low shelf, or in a locked cabinet that is securely fastened to the wall. If the item is placed on a shelf, install a guardrail to prevent the bottle or container from slipping off the shelf and breaking or spilling onto the floor.

- ☐ Store all hazardous household products in a secure place away from children, pets, flammable materials, sources of sparks or flames and your stored drinking water. The storage area should be safe and well



ventilated. Store products in their original containers with caps that can be tightly sealed. If it becomes necessary to store a product in a different container, always clearly label the container with the product name and proper instructions. Store liquid and dry chemicals separately.

- ☐ Store photographic materials in clearly marked and dated unbreakable, non-metal containers.
- ☐ Store pool chemicals away from metal tools since the chemicals can cause corrosion.
- ☐ Do not store flammable liquids in glass containers and avoid storing flammable materials such as fuels. If you store gasoline for lawn mowers, etc., store the gasoline in a sealed, metal container.
- ☐ Do not store hazardous products in containers that resemble food containers.

When using hazardous household products, follow the manufacturers directions carefully. Most of them are made to be used one at a time and should not be mixed together. Mixing them can produce explosive reactions or toxic fumes. For example, mixing ammonia and bleach together creates toxic fumes.

IF THERE IS A FIRE

Stay low. Heat, smoke and toxic gases rise so stay low. If you can, cover your mouth and nose with a wet cloth.

Test the door. Feel the door with the back of your hand. If it is hot, do not open it. Find another escape route. If it is not hot, open it slowly and carefully.

Exit quickly. Once you are outside, stay outside. Go to a neighbor's house to call 9-1-1. Meet your family at the pre-designated meeting place.

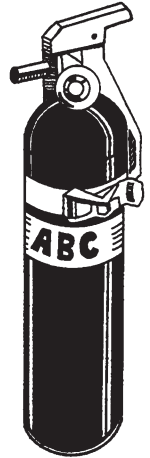
If your clothing catches on fire, "Stop, Drop and Roll." Do not run. Running will only fuel the fire and cause it to spread. Cover your face with your hands and roll until the fire is extinguished.

FIRE SAFETY

Most home fires are caused by carelessness or faulty equipment. These fires can be avoided through simple preventative measures. There is always the possibility of fire after an earthquake because of broken or damaged gas lines. Fire following an earthquake has the potential of causing greater loss of life and damage than the earthquake itself.

Fire Safety Checklist

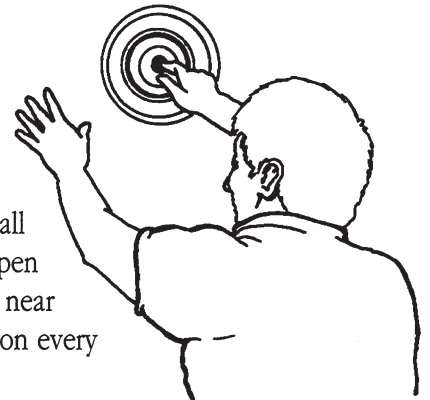
- ☐ Remove debris from garage, attic, closets, etc.
- ☐ Store flammable liquids in proper containers, away from heat sources.
- ☐ Keep matches and lighters out of sight, away from children.
- ☐ Teach family members how to use a fire extinguisher.
- ☐ Purchase a fire extinguisher suitable for all types of house fires (A:B:C).
- ☐ Place fire extinguishers in an accessible location. Test them often and recharge after every use and as recommended by the manufacturer.
- ☐ Install smoke detectors throughout your home. Test them once a month and replace the batteries once a year.
- ☐ Use a screen for the fireplace and a spark arrester on the chimney to trap flying sparks.
- ☐ Do not overload electrical outlets. Replace worn or frayed cords.
- ☐ Keep your yard well groomed and your weeds cut.
- ☐ Develop an escape plan with two exits per room. Practice the plan.
- ☐ Teach your family to "Stop, Drop and Roll" if their clothing catches fire.



Smoke Detectors

Most home fire deaths occur during the early morning hours when most people are sleeping. The heat and smoke from a fire are more dangerous than the flames. The heat can scorch your lungs and the smoke travels faster than the flames. Ninety percent of all fire deaths are caused by smoke inhalation.

- ☐ Install smoke detectors in your home. Working smoke detectors double your chances of surviving a fire. Do not remove the batteries if the smoke detector sounds.
- ☐ Place smoke detectors on the ceiling or high on the wall outside bedrooms. Also place them at the top of open stairways or at the bottom of enclosed stairs and near (but not in) the kitchen. Place a smoke detector on every level of your home.
- ☐ Check your smoke detector at least once a month to see that it is operating properly. Do not remove the batteries if the smoke detector sounds. A battery-operated smoke detector cannot alert you if the batteries are taken out.



Smoke Detectors, continued

Clean your smoke detector once a month and replace the batteries at least once every year. Hint: Choose a date that is easy for you to remember. For example, each spring and fall when you reset your clocks, a birthday, anniversary, holiday, etc.

Change batteries:

Smoke detectors are inexpensive and can be purchased at most hardware, home supply, discount and drug stores.

Fire Extinguishers

A portable fire extinguisher can help save lives and property by putting out a small fire or containing the fire until the fire department arrives. Fire extinguishers are not designed to fight large fires. If you cannot put out a fire immediately with a fire extinguisher, leave the area immediately and call 9-1-1 from a neighbor's house.

Fires are classified into three types:

Class A: Ordinary combustibles - paper, wood, cloth, rubber and many plastics.

Class B: Flammable liquids - oils, gasoline, grease, solvents, lacquers and some paints.

Class C: Electrical equipment and appliances - electrical sources which are still supplied with power.

In order to extinguish a fire, you must use the proper fire extinguisher for the type of fire. Using a fire extinguisher that is not rated for the type of fire you are fighting can make the fire worse.

There are several different types of fire extinguishers available. Some of them are:

Multi-purpose dry chemical (rated A:B:C) - This may be used on all types of fires and is the least expensive.

Halon (rated A:B:C or B:C) - This is the most effective for computers and electrical equipment because it does not leave a residue.

Carbon Dioxide (rated B:C) - This is used on most mechanical and electrical fires.

Pressurized water - This is for Class A fires only. It can be dangerous if used on Class B or Class C fires.

Operating a fire extinguisher

To operate a fire extinguisher, follow the **P.A.S.S.** steps outlined below:

Pull the pin from the handle.

Aim the extinguisher. Point the extinguisher nozzle at the base of the fire.

Squeeze the handle. This releases the extinguisher agent.

Sweep from side to side at the base of the fire until the fire is out. If the fire restarts, reactivate the extinguisher.

DID YOU KNOW?

It is better to have several smaller extinguishers distributed throughout your home (kitchen, garage, etc.) than one large one that is hard to get to quickly.

Fire extinguishers must be checked periodically to be sure they are fully charged and ready for use. Extinguishers need to be shaken periodically to prevent the contents from settling.

Fire extinguishers need to be serviced annually by a professional. They should also be recharged or replaced after each use. Check the phone book for vendors.

SUNNYVALE PUBLIC SAFETY PROGRAMS

PREPAREDNESS, PREVENTION, and SAFETY

- Project Ark
- Sunnyvale Amateur Radio Emergency Services (SARES)
- Crime Prevention
- Fire Safety

PROJECT ARK

Project Ark, a disaster shelter program, is a cooperative effort between the City, the American Red Cross, and four school districts in Sunnyvale (Sunnyvale Unified, Santa Clara Unified, Cupertino Unified, and Fremont Union). This program provides for 12 emergency supply containers, known as Arks, placed at school sites around the City. Each container is stocked with sufficient supplies to set up a mass care shelter for up to 300 people. The supplies include:

cots, blankets, towels, water, lanterns and first aid kits, etc.

Schools were chosen as sites for disaster shelters for several reasons. Schools are built to a stronger seismic code than most buildings, have gyms or other areas for sleeping and feature kitchen and rest room facilities for large numbers of people

In the event of a disaster, the supplies may be used to open an American Red Cross Mass Care Shelter at one or more of the Following school sites, as needed.

The Arks are located at:

Bishop Elementary School, Columbia Elementary School, Ponderosa Elementary School, Cupertino Middle School, Lakewood Elementary School, Peterson Middle School, Sunnyvale Middle School and Fremont High School

If you are interested in serving as a shelter manager following a disaster or want more information about SARES or SNAP, call:

(408) 730-7190.

SUNNYVALE AMATEUR RADIO EMERGENCY SERVICES (SARES)

The Sunnyvale Amateur Radio Emergency Services (SARES) is a group of FCC licensed radio amateurs who, without compensation of any kind, donate their time, capabilities and equipment to the City of Sunnyvale. Known as "Hams," these volunteers provide communications during an emergency or disaster, when regular communication is disrupted or overloaded. The SARES members were an excellent resource following the 1989 Loma Prieta earthquake. Members of SNAP's communications committees will find Hams at fire stations and schools following a disaster, ready to relay information to the City's Emergency Operations Center (EOC). Hams are also a fantastic resource in non-disaster situations, helping out during drills, exercises and other events. Any time the need arises for rapid, reliable communications the City of Sunnyvale can always count on SARES to be there.

SUNNYVALE CRIME PREVENTION AND FIRE SAFETY PROGRAMS

In addition to the SNAP Program, the Sunnyvale Public Safety Department offers several other community education services in Crime Prevention and Fire Safety.

Neighborhood Watch -

Residents learn how they can work together to prevent crime in their neighborhoods. An officer discusses potential neighborhood problems and answers questions. Neighbors also receive literature on deadbolt locks, sliding glass door security and other safety information.

Home Security/Operation Identification -

Crime Prevention staff visit the homes of residents and explain basic crime prevention tips related to home security. At the residents request, their property is engraved with their driver's license number. This identification can be helpful in the recovery of stolen goods.

Senior Safety -

Officers explain how to prevent being tricked into paying for an unwanted service or a service that was promised but not delivered. Officers also discuss how to avoid other illegal business practices.

Bicycle/Pedestrian Safety -

Officers discuss local traffic laws and offer tips on how to avoid common bicycle and pedestrian hazards. The discussion stresses the importance of wearing safety helmets and includes injury and fatality statistics.

Drunk Driving -

Officers discuss how to prevent people from driving under the influence by hosting sober parties and appointing designated drivers. Residents also learn about drunk driving statistics and how drunk drivers are processed following an arrest.

Drugs and Children -

Parents learn about current drug use trends, how to spot drug use and what to do if there is a problem.

Fire Safety -

A fire safety presentation includes general fire and burn prevention techniques as well as the importance of installing smoke detectors, what can be done when clothes catch fire and how to plan emergency exit routes.

You can take advantage of these services by inviting an officer to your neighborhood. For more information, call:

(408) 730-7140

SUGGESTED READING AND SOURCES OF INFORMATION

Suggested Reading and Sources of Information, continued

READING MATERIAL

Bolt, Bruce A. "Earthquakes," New York: W.H. Freeman, 1988.

Calhoun, Fryar. "Earthquake Survival Guide: Emergency Planning for Family, Home, Workplace and School," Berkeley, CA: Magnet Press, 1990.

EQE Incorporated. "The EQE Earthquake Home Preparedness Guide," San Francisco, CA, 1987.
Information address: EQE Incorporated, 121 Second Street, San Francisco, CA 94105.

FEMA pamphlets.

Family Emergency Preparedness Series:

Your Family Disaster Plan L-191, September 1991

Your Family Disaster Supplies Kit L-189, September 1991

Emergency Preparedness Checklist L-154, September 1991

Helping Children Cope with Disaster September 1992

Emergency Food and Water Supplies FEMA-215, March 1992

Are You Ready? H-34, March 1992

Foraker, Joseph W. "What You Should Know About Earthquakes: It Could Save Your Life," Mission Viejo, CA: SJB Publishing Company, 1983.

Gere, James M. and Haresh C. Shah. "Terra Non-Firma: Understanding and Preparing for Earthquakes," Stanford, CA: Stanford Alumni Association, 1984.

Hodgins, Pamela A. "Take Me Shopping: A Consumer Guide to Safer Alternatives to Hazardous Household Products," (Joint project by Santa Clara County Hazardous Waste Management Program, Santa Clara Valley Nonpoint Pollution Control Program and the City of Sunnyvale.) April, 1992.

Iacopi, Robert. "Earthquake Country," Menlo Park, CA: Lane Publishing Company, 1976.

Mattingly, Carolyn. "Living With Our Faults: An Earthquake Preparation Guide," Palo Alto, CA, 1986.

Pacific Bell telephone directory.

The front pages of the directory provide emergency numbers, emergency first aid techniques and earthquake preparedness tips in the "First Aid and Survival Guide."

Santa Clara County Health Department. "Earthquakes: A Survival Guide for Seniors," 1990.

Sunset Magazine. "Getting Ready for a Big Quake," Sunset Special Report, 3/82, pp.104-111.

Ward, Peter L. and Robert A. Page. "The Loma Prieta Earthquake of October 17, 1989," U.S. Government Printing Office: U.S.G.S., 1990.

Yanev, Peter I. "Peace of Mind in Earthquake Country," San Francisco, CA: Chronicle Books, 1989.

SOURCES OF INFORMATION

American Red Cross, Santa Clara Valley Chapter

2731 North First Street
San Jose, CA 95134
408-577-1000
www.redcross.org/ca/scv

United State Geological Survey, USGS

345 Middlefield Road
Menlo Park, CA 94025
650-853-8300
Earthquake Hazards
650-329-4668
Earthquake 24-Hour Hotline
650-329-4085
www.quake.usgs.gov

Federal Emergency Management Agency, FEMA

Region 9, Building 105, The Presidio
San Francisco, CA 94129
www.fema.gov

Department of Conservation, CDC

Division of Mines and Geology
Geologic Information and Publications
801 K Street
Sacramento, CA 95814
916-445-0517
www.consrv.ca.gov

Governor's Office of Emergency Services

2800 Meadowview Road
Sacramento, CA 95832
916-262-1800
www.oes.ca.gov

Governor's Office of Emergency Services

Coastal Region Office
1300 Clay Street, 408
Oakland, CA 94612
510-286-0895
www.oes.ca.gov

Suggested Reading and Sources of Information, continued

California Seismic Safety Commission

1755 Creekside Oaks Drive
Sacramento, CA 95833
916-263-5506
www.seismic.ca.gov

Sunnyvale Public Library

655 West Olive Avenue
Sunnyvale, CA 94086
408-730-7300
www.ci.sunnyvale.ca.us

Santa Clara Valley Water District

5750 Almaden Expressway
San Jose, CA 95118-3686
408-265-2600
www.scvwd.dst.ca.us

National Weather Service

21 Grace Hopper Avenue, Stop 5
Monterey, CA 93943
831-656-1710
www.noaa.gov

DON'T WAIT FOR THE NEST DISASTER, GET READY NOW!

Have you completed all of the items listed in the following checklist? if not, what are you waiting for?

PLANNING FOR YOURSELF AND YOUR FAMILY

- Store your vital documents in a safe place.
- Make an inventory list of your household items.
- Create a family emergency plan.
- Teach your children about disasters and what to expect from them.
- Make provisions for the elderly and disabled.

PREPARING YOURSELF AND YOUR FAMILY

- Store one gallon of water per person per day in a sturdy plastic container.
- Maintain a three to five day supply of food.
- Assemble emergency supplies for your family.
- Prepare portable disaster supply kits for your car and workplace.
- Store your supplies in a safe, accessible location.

PROTECTING YOUR FAMILY AND YOUR HOME

- Identify, secure and correct any potential hazards in your home.
- Examine the structural safety of your home.
- Locate your utility shut-off valves.
- Store hazardous household products in a safe location.
- Install smoke detectors
- Learn how to use a fire extinguisher.



For more information, please call:
Sunnyvale Department of Public Safety, Emergency Preparedness Unit • 408-730-7190

For Deaf Access, please call:
TDD/TTY • 408-730-7501